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Agricultural.

VARIOUS TOPICS.

FARMERS' INSTITUTES.

The time is approaching when the State Farmers' Institutes will be located, and the programmes announced. Every farmer, to whom this article will come with any force or value, will attend something of the kind in the next three months. Every county almost has an organization for the holding of local institutes, and those that have not, should be worked into an enthusiasm in aid of the project by the readers of the FARMER. What I had to say particularly regarding the institutes was that every farmer who expects to attend any of them should obtain a programme as early as possible, study it, and inform himself upon some one of the topics, so as to be able to make an intelligent argument, illustrate the sentiment by some experiment, giving facts and figures, or in some way, help to get at the bottom facts when the theme is open for discussion. Too many farmers go as a kind of agricultural soakers; they absorb, but nothing can be squeezed out of them. Then others will relate on the way home, the facts regarding an experience of their own, touching some of the topics discussed, which would have been invaluable if it had been stated at the meeting. I never yet have looked over a programme for an institute, but that on some one of the subjects I knew something which seemed to me important to have brought out. I take it that when a person feels that way, it is his duty to prepare himself to push his point when the time comes. The investigation, of itself, is of as much value to the individual as the information he is likely to receive from the facts imparted by others, and he is likely thus to bring out the meat of the whole discussion.

While it is well to have large audiences, and good listeners, the mere listeners are apt to be largely in excess of the talkers. Persons who are called out often say, "I came to listen and to learn and not to talk." This is a very selfish expression when scanned down to its real essence. It says: "I lack the information necessary to success in some things, and will go over to the institute, where it is likely some fellow will hand out the very thing I am looking for and I can get hold of it without offering to exchange any of my own ideas as an offset." A much better way would be, as I have intimated, to study the programme, con the lessons of your experience, and be prepared to state some facts that you know. Every year we are or ought to be trying or testing something new, and a good feature to a programme would be the question, "Have you tried any new plans, new tools or new methods on your farm the past season which have proved successful or otherwise." This will cultivate and extend a spirit of investigation that will dispel a tendency to stagnation and sameness.

The capacity to do is born of a willingness to do, and the farmer who really desires the success of an institute will shoulder some of its responsibilities and will surprise himself when he finds that he is really of service at such a gathering.

THRESHING CORN AGAIN.

I have been there and know how it is myself. I helped a belated neighbor yesterday in the forenoon. They threshed 94 bushels in a little more than two hours running time. Hauling the corn from the field and placing it on the thresher's table is the only difficult task in the operation. This can be facilitated by binding in bundles at cutting time, the same as topped stalks are bound, so that the bundles can be handled with a fork instead of by hand. Some are running their stalks through the machines, as being cheaper and more expeditious than cutting by a feed cutter, and they are in better shape for feeding. This plan of husking corn is likely to be adopted almost universally another year. I shall not set myself up as an expert at placing the corn on the table from a wagon unless it is bound; I tried yesterday to supply the cylinder alone as fast as it could gulp it down, by pulling it up with my hands. It is not a movement tending to cultivate a taste for leisure nor very long finger nails. The kernels are broken some as they come through, but for feeding there will probably be no loss. The stalks are shredded up in splendid shape for feeding, and that of itself is a valuable feature of the innovation.

SHEEP.

Every farmer who desired to get rid of his sheep this fall has had an opportunity to do so, at advanced values from a year ago. Feeding wethers have been very scarce and hard to get, and many who expected to feed have filled up with lambs. The stock of sheep for next year's shearing will be still further reduced. A good many car-loads have gone out of the State, and the reduction of numbers by feeding will have a tendency to create a sheep famine in the near future, and make the wool crop exceeding short. Those who want sheep had better take hold while they are comparatively cheap, for if they wait another year those who have sheep may not want to sell.

A. C. G.

AMERICAN MERINOS AT THE ANTIPODES.

It will be remembered that some four years ago a number of American Merinos were purchased by Australian sheep-breeders for exportation to that country. After a few had been landed the business was suddenly stopped by the passage of a law excluding further importations on the ground that some of the sheep were affected with scab. Some of those landed were burned, some were killed by using a sheep dip upon them so strong that they never recovered from it, while a few escaped and were cherished by their owners. From the Melbourne *Argus*, date August 24, we take the following editorial article on the result of the importation of the few American Merinos left alive by the prejudice and jealousy of the breeders of stud flocks in Australia:

"The Australian Sheep-Breeders' Show has generally some point of interest. It justifies its existence each year by teaching the sheep-breeders something worth learning. On this occasion the noteworthy feature is that the champion ram who has swept off all the prizes is a 'three-quarter bred Vermont sheep,' exhibited by Messrs. M'Farland Bros., of Barooga, New South Wales. This ram takes the prize from a splendid specimen of the Australian Merino, a great grandson of the famous Bellevue ram Sir James. The ram of Messrs. T. Dowling and son, of Jellallabad, has an almost faultless fleece of the highest type—bright and silky—of Merino wool, and but for the Vermont crossbred he would undoubtedly have secured all the honors of first in his class, the special prize, and the championship, but, as it is, these have gone to his more massive competitor. The success of the Messrs. M'Farland is assuredly a blow to the breeders who have persisted, with Mr. Curr, the Victorian inspector of stock, in affirming that nothing is to be gained by crossing the Australian stock, and that the exportation of stud animals should be strictly prohibited. When the discussion was in progress occasioned by the appearance upon the scene of the sheep of the Messrs. Harper—and by their precipitate disappearance from the scene also—we submitted that it was not wise to push this dictum to extreme lengths, and that while the ordinary importation of ordinary sheep might well be prohibited in order to guard against disease, yet the door should be left open for the admission of stud animals of new varieties when sufficient cause could be shown for their introduction. Every precaation should be taken, no doubt, but the position that the colonies are never to take advantage of outside strains would be shown by the present incident to be unsound. It is good for Australia, presumedly, that the Messrs. M'Farland should breed such a ram as that which has won the championship, and should have a number of its kindred for sale, but if Mr. Curr and the prohibitionists had had their way this successful cross would have been unknown here."

From the report of the show in the same paper we take the following extracts:

"There are 53 rams sent in by Messrs. W. Gibson and Son, of Scone. Among them are some remarkably high-class sheep that have been heavily used in the Scone stud. The three rams by the American stud sire Squatter 2nd from Scone ewes will attract the attention of those who are interested in the experiment of mingling the American and Australian types of Merino. * * * *

"Messrs. M'Farland Bros., of Barooga, N. S. W., have eight of their Vermont-Australian rams catalogued for sale. They are by the finest sires that could be obtained for money in America, and exhibit in their form and fleece all the benefit to be derived from the cross between the Vermont and Australian types of Merino. * * * *

"The executors of the late Mr. Jas. Winter of Dhurringile, have sent in 13 rams by imported Vermont sires. They have very heavy fleeces, and like all the sheep of mixed American blood are remarkably good on the thigh. * * * * * * * * * *

"Two errors occurred in the prize list given yesterday. M'Farland Bros., of Barooga, New South Wales, gain the special prize presented by the New Zealand Loan and Mercantile Agency Company for the most valuable fleeced ram in the show with their champion ram, and not Mr. J. Mack, as reported."

From all which we conclude that the Great American Merino will give just as good an account of himself at the antipodes as in the more favored land of his birth.

GOVERNMENT EXPERIMENT STATIONS.

Text of the Bill Introduced into Congress by Hon. H. H. Hatch, of Missouri.

Hon. H. H. Hatch, of Missouri, introduced a bill into the 49th Congress for the establishment of a Government Experiment Station in each of the States, in connection with the Agricultural Colleges in the several States, under the following title: "A bill to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto." This bill is on the House Record as No. 2933, report No. 848. On Jan. 7, 1886, it was read twice, referred to the committee on agriculture, and ordered to be printed. On March 3, it was reported with amendments, committed to the committee of the whole house on the state of the Union, and ordered to be printed. On May 6, it was ordered to be re-printed. It was also introduced into the Senate, where it was discussed shortly prior to adjournment, and laid over until the next session. The bill is as follows:

LOCATION OF THE STATIONS.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That in order to aid the Department of Agriculture in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, in connection with the college or colleges in each State established, or which may hereafter be established, in accordance with the provisions of an act approved July 2, 1862, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, or such college which has been or may hereafter be established and operated under the laws of any Territory in conformity with the provisions of this act, a department to be known and designated as an "agricultural experiment station:" Provided, that in any State in which two such colleges have been or may be established, the appropriation hereinafter made to such State shall be equally divided between such colleges, unless the Legislature of such State shall otherwise direct.

OBJECTS OF THE STATIONS.

Sec. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation within the isothermal limits represented by the climate of the several stations and their vicinity; the analysis of soils and waters; the chemical composition of manure, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories.

Sec. 3. That the said experiment stations shall be under the direction and control of the trustees or other governing body of such colleges, who shall have power to appoint a director and such assistants as may in each case be necessary.

UNIFORMITY OF WORK.

Sec. 4. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States commissioner of agriculture to determine annually a standard of valuation of the ingredients of commercial fertilizers, upon which the analysis of such fertilizers, as far as made by said stations, shall be based; to furnish forms, as far as practicable, for the tabulation of results of investigations or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and in general, to furnish such advice and assistance as will best promote the purpose of this act; but nothing herein contained shall be construed to authorize said commissioner to control or direct the work or management of any such station except as to the standard of valuation of commercial fertilizers. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the governor of the State or Territory in which it is located, a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said commissioner of agriculture, and to the secretary of the treasury of the United States.

PUBLICATION OF RESULTS.

Sec. 5. That in order to make the results of the work of said stations immediately useful, they shall publish at least once in every three months bulletins or reports of progress, one copy of which shall be sent to each newspaper in the States and Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same and as far as the means of the station will permit. Such bulletins or reports and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the Postmaster-General may from time to time prescribe.

APPROPRIATIONS—HOW SPENT.

Sec. 6. That for the purpose of paying the salaries and wages of the director and other employes of said stations, and the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of $15,000 per annum is hereby appropriated to each State and Territory, to be paid in equal quarterly payments, on the first day of January, April, July and October in each year, to the treasurer or other officer duly appointed by the aforesaid boards of trustees to receive the same, the first payment to be made on the first day of July, 1886, but no such payment shall be made to any station until the trustees, or other governing body of the college at which such station is located shall have executed, under their corporate seal, and filed with the secretary of the treasury of the United States an agreement to expend all moneys received under this act for the sole and exclusive purpose and in the manner herein directed, to maintain a farm of at least 25 acres in connection with such college, and shall also have executed and filed with said secretary their bond, in the penal sum of $15,000 with two sufficient sureties, approved by the clerk of a court of record in such State or Territory, conditioned on the faithful expenditure of and accounting for all moneys so received: Provided, however, That out of the first annual appropriation so received by any station, an amount not exceeding one-fifth may be expended in the erection, enlargement or repair of a building or buildings necessary for carrying on the work of such stations; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

MONEY DEDUCTED.

Sec. 7. That whenever it shall appear to the secretary of the treasury from the annual statement of receipts and expenditures of any of said stations, that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

Sec. 8. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the State and Territories in which they are respectively located.

"IS IT RIGHT?"

NO. IV.

Our investigations have elecited one more response in the last FARMER, from Cyrus Lee. Being short and comprehensive we will reproduce it in full.

"Old Genesee inquires if a protective tariff is right, and wishes a direct reply. We say yes." Our little school of political economy now has a class of two, of which Mr. Bentley stands at the head. And now let us review. Mr. Bentley, instead of answering the question we asked, propounded three others; while Mr. Lee instead of answering our question, answered another of his own making. This is what we call evasion. Turn to my first article, neighbor Lee, which you will find on the first page of No. 38, Vol. 17, of the FARMER. You will find my question to read as follows: "Ought not the property of the country to support the government." Please deal with it as you find it, for I do not propose to be drawn off my base. Having in my former article endeavored to show some of the workings of our great national taxing machine, we will now endeavor to look a little further into the same subject. But let it not be forgotten that I have shown from facts and figures that the popular idea of our revenue being drawn principally from luxuries, is a delusion. But before dismissing this branch of the subject let us look still a little deeper and see what becomes of the theory of "a revenue derived chiefly from luxuries." Tariff Commission, page 310. "Dutiable brass, copper, gold and silver, jewelry—lead—metals not otherwise specified, pens and pins, metallic tin, manufactures of watches, watch materials and zinc, 35 35-100 per cent.

Well, here we are, with cotton goods taxed, 37 per cent; iron, steel, etc., 40 63-100 per cent; sugars, 80 per cent; woolen goods, 63 32-100 per cent, making the average of these staple necessaries 55¼ per cent.

Turn now to the luxuries. Silk, the highest, pays 50 01-100 per cent; fancy articles, 27 31-100 per cent; gold and silver jewelry, 30 35-100 per cent; average on all these luxuries, 36 per cent. Summing the whole matter up, after the most careful examination, the result may be briefly stated as follows: Total revenue of 1883 in round numbers $210,000,000; collected on luxuries and fancy articles, $30,000,000. Percentage of duty on necessaries, 55¼ per cent; percentage on luxuries, 36 per cent. Discrimination in favor of luxuries, 19¼ per cent. It is not strange that the masses of the people do not understand this tariff business. Indeed it seems to be the business and object of tariff makers to render them so complicated that they cannot be understood by the masses of those who are taxed. Just turn to this Tariff Commission Report, and you will find that through its four hundred and odd pages, it is a perfect network of ingeniously woven complications.

In 1874 Professor Perry of Williams College delivered a lecture before the Nebraska State Agricultural Society, entitled "The Foes of the Farmers." In exposing the complications and sophistries of the tariff system, he makes this statement, "that there are by actual count just 756 rates of duty specified to be assessed on different things and classes of things," and from the best casual judgment I can make, the number has been doubled by more recent enactments, "specific" and "ad valorem," are rung on every imaginable change, and so constructed that they vary on every day's fluctuation of the markets. No less than 1,492 different things and classes of things were embraced in the schedule of 1872, and the number added by subsequent enactments, will nearly or quite make up a total of three thousand. Turn to the article of steel, Tariff Commission, pages 280 to 282, and you will find it taxed under no less than 130 different heads, while page 275 tells us that sardines get off by being taxed only six times. It will no doubt be interesting to the two members of my class to learn (page 276) that saurkraut, bologna sausages and sausage skins have all been placed on the "free list." Page 278 informs us that while calf skins are taxed 20 per cent, snails and the skins of asses, sharks and sausages are all duty free. This makes a free trade man draw a sigh of relief, but the cold sweat comes over him when he reads (page 277) that he must pay ten cents a pound for the privilege of buying foreign shoddy. But I will leave this shoddy business to be considerd in another article. It is an item of greater magnitude than most people are aware of, and as almost everybody buys shoddy, for our protected manufacturers, it becomes a subject of general interest.

OLD GENESEE.

SHORTHORNS AT AUCTION.

The public sale of Shorthorns by Mr. M. Kelley, of Kelley's Corners, was held on the Brooklyn Fair Grounds on Saturday last. The weather was cold, and raw, and the selection of Saturday, which could not be avoided, was unfortunate, as it undoubtedly kept away many from a distance who would otherwise attended. The attendance was fair in numbers, but only a few breeders were present, with a number of farmers who are engaged in feeding stock. After hot coffee had been passed around—the only hot thing on the grounds that day except the stove it was cooked on—Col. J. H. Mann mounted the platform and addressed some preliminary remarks to those present upon the future of Shorthorns. It was hard getting up any enthusiasm in the face of the cold wind that seemed to go right through those present, and the prices obtained for the stock sold were very low. Among those in attendance we noticed Messrs. A. P. Cook and W. E. Randall, of Brooklyn, L. D. Watkins, of Watkins Station, J. S. Flint, of Kelley's Corners, Wheeler Brothers, of Homer, Mr. Ladd, of Grass Lake, A. A. Wood, E. Helber, and A. G. Townsend, of Saline, Wm. Steele, of Ionia, G. B. Rhead, of Norvel, Mr. Peckham, of Parma, Messrs. Croman and Raymond, of Grass Lake, C. F. Vining, of Brooklyn, A. G. Ayres, of Horton, J. F. Payne, of Addison, F. M. Palmer, of Bridgewater, G. Hitt, of Brooklyn, B. Laur, of Springville, E. W. Craft, of Grass Lake, and Mr. Bouldry, of Summit. The list of animals sold and purchasers is as follows:

FEMALES.

Duchess 43d of Woodhill, by Duke of Oxford 38th, out of Duchess 28th of Woodhill, by Imp. 30th Duke of Oxford (33712) a Beauty, to E. F. Vining, Brooklyn. Price, $80.

Lyon's Gentle Annie 2d, by 29th Duke of Hillsdale 51073, out of Lyon's Gentle Annie, by 5th Prince of Argyle 40566, a Phyllis, to A. G. Ayres, Horton. Price $100.

Red Rose, by Erie 8105, out of Juliette 2d by Erie 8105, a Strawberry, to A. P. Cook, Brooklyn. Price, $45.

Red Rose of Columbia, by Grand River Duke 35701, out of Red Rose, by Erie 8105, a Strawberry, to F. M. Palmer, of Bridgewater.

Duchess of Columbia, by Airdrie Belle Duke 54473, out of Red Rose, by Erie 8105. Croman & Raymond, Grass Lake. Price $45.

Second Duchess of Columbia, by Airdrie Belle Duke 54473, out of Red Rose, by Erie, 8105. F. M. Palmer, Bridgewater. Price, $40.

Nell 2d, by 8th Duke of Tecumseh, out of Nell, by Burlington 13574. C. F. Vining, Brooklyn. Price, $60.

Nellie Gray 2d of Columbia, by Bredalbane 2d 37792, out by Nell, by Burlington 13574. Wm. Steele, Ionia. Price, $75.

Nell 4th, got by Argyle 2d of Riverside 37479 out of Nell of Burlington 13564; G. Hitt, Brooklyn. Price, $50.

Nellie Gray 3d of Columbia, by Airdrie Belle Duke 54473, out of Nellie Gray 2d of Columbia, by Bredelbane 2d 37792; Wm. Steele, Ionia. Price, $60.

Red Beauty, by Airdrie Belle Duke 54473, out of Nellie Gray 2d of Columbia, by Bredelbane 2d 37792; Wm. Steele, Ionia. Price, $85.

BULLS.

Airdrie Belle Duke 3rd, by Duke of Mayflower 38487, out of Airdrie Belle 4th by 14th Duke of Thorndale 8031; Croman & Raymond, Grass Lake. Price $110.

Fifth Duke of Columbia, by Airdrie Belle Duke 54473, out of Red Rose of Columbia, by Grand River Duke 35701; Mr. Bouldry, Summit. Price, $50.

Sixth Duke of Columbia, got by Airdrie Belle Duke 54473, out of Red Rose of Columbia, by Grand River Duke 35701; B. Laur, Springfield. Price, $40.

Captain Moore 6th, got by Airdrie Belle Duke 54473 out of Nellie Gray 2d of Columbia, by Bredelbane 2d 37792; E. W. Craft, Grass Lake. Price, $30.

Kelley's Duke of Argyle, got by 6th Duke of Columbia (Vol. 32 A. H. B.) out of Kelley's Miss Argyle by 29th Duke of Hillsdale 51073; Wm. Steele, Ionia. Price, $40.

PLEURO-PNEUMONIA.

Proclamation!

EXECUTIVE OFFICE, LANSING, MICH.

Whereas, pleuro-pneumonia, a contagious disease, is now prevailing among the cattle in the county of Cook, in the State of Illinois; and whereas large numbers of cattle are being brought into this State from said county of Cook, and there is danger that said disease will be communicated to, and become prevalent among the cattle in this State;

Now, therefore, to guard against such danger, and in accordance with the provisions of Act No. 182, of the Session Laws of 1885, of this State, being "An act to provide for the appointment of a State Live Stock Sanitary Commission and State Veterinarian, and to prescribe their powers and duties, and prevent and suppress contagious and infectious disease among the live stock of the State," it is hereby ordered that no cattle shall be brought from said county of Cook, State of Illinois, into this State to be kept for feeding, or to be slaughtered therein, which have such disease, or have been exposed to the same.

On and after the first day of December, 1886, one or more of said Commissioners, or a competent veterinarian appointed by them, will remain in the city of Chicago for the purpose of inspecting all shipments of cattle consigned from said county of Cook to local points in this State, and no cattle shall be shipped into this State as aforesaid, from said points, without a written certificate and permit from one of said Commissioners or Veterinarian so appointed.

By the Governor: RUSSELL A. ALGER.
H. A. CONANT, Secretary of State.

PLEURO-PNEUMONIA AT CHICAGO.

A private note to the FARMER from the agent of the Michigan Live Stock Commission at Chicago, under date of November 27th, contains the following items of interest regarding the situation at Chicago:

"The situation here with regard to the cattle disease remains unchanged with this exception: The State Commission is now having an appraisement made of all the cattle quarantined as 'exposed or infected cattle.' They do not appraise sick cattle, as they cannot under the law pay for such. There are about 5,000 head of cattle in the distilleries and about the city that are under U. S. quarantine as having been exposed. New lots are daily found, and new cases are daily developed. Nevertheless the total sick, as compared with the number of cattle, is not large. The disease seems to progress very slowly. It is thought to have been in the distilleries for two years, and yet the mortality has not been such as to excite comment until it appeared in the cows that are kept in the outskirts of the city.

"I do not say this about the small death rate to indicate that I think it not a dangerous thing, but to show that like a fire it sometimes smolders a long time before breaking out. The State Commission will begin next week the slaughter of appraised animals, and will sell the meat of all that prove to be healthy, as no doubt a large proportion have not taken the disease.

"They have a big job on their hands, as it has extended all over the city where cows are kept, it being the custom to herd the cows on the commons during summer, where cows from different sections come in contact with each other.

"The movement of cattle from the stock yards to Michigan has not been heavy this fall.

"The cattle owners in the outskirts are quite uneasy about the quarantine and are frequently found trying to dispose of their cattle or moving them away, but there are now so many outside who are afraid of getting the disease, it is difficult to move without being detected."

HONORS FOR MICHIGAN CATTLE.

A Correction.

TOMPKINS, Jackson Co., Nov. 26, 1886.

To the Editor of the Michigan Farmer.

DEAR SIR.—In the FARMER of Nov. 23, I notice a slight mistake in your report of the Chicago Fat Stock Show. That says only one premium was awarded to Michigan cattle; but that is a mistake, as I was awarded one first premium, in "lot 17, gain per day," on steer one and under two years of age.

Yours truly,
FRANK A. TOWNLEY.

We make this correction with great pleasure. It was stated during the show that Mr. Townley's calf had been awarded sweepstakes for the greatest gain per day, but no report published so far gives Mr. Townley's steer credit for the premium awarded him. Those who saw this young steer at the State Fair will remember what a handsome, growthy animal he was, and will not be surprised at his carrying off the honors awarded him.

A REPORT from Chicago says the hogs slaughtered there by packers during the week amounted to 200,876, or within 13,000 of the number packed the same week last year. Receipts for winter season to date exhibit almost 214,000 decrease, while shipments exhibit 133,000 increase. The number of hogs packed is 345,391 less than during the corresponding period last year, owing to the recent strikes.

PAY FOR BUILDING LINE FENCE.

To the Editor of the Michigan Farmer.

Being a subscriber to your paper, I would like to ask through it how payment is enforced for making a line fence which the adjoining farmer will not build, he having only what the law allows him?

A SUBSCRIBER.

SHAFTSBURG, Nov. 8, 1886.

The language of the statutes upon the point inquired about is clear and explicit, and we quote the sections specially referring to it:

SEC. 799. When any deficient fence, built up or repaired by any complainant as provided in the preceding section, shall be adjudged sufficient by two or more of the fence viewers, and the value of such repairing or building up, together with their fees, shall be ascertained by a certificate under their hands, the complainant shall have the right to demand either of the occupant or owner of the land where the fence was deficient, double the sum so ascertained; and in case of neglect or refusal to pay the sum so due, for one month after demand thereof made, the complainant may recover the same, with interest, at one per cent a month, in an action for money paid, laid out and expended.

SEC. 801. In case any party shall refuse or neglect to erect and maintain the part of any fence assigned to him by the fence viewers, the same may be erected and maintained by the agrieved party, in the manner before provided; and he shall be entitled to double the value thereof, ascertained in the manner aforesaid, and to be recovered in like manner.

SEC. 807. Upon the division and assignment as provided in the preceding section, the fence viewers may, in writing, under their hands, assign a reasonable time for making the fence, having regard to the season of the year, and if either party shall not make his part of the fence in the time so assigned, the other party may, after having completed his own part of the fence, make the part of the other, and recover therefor double the ascertained expenses thereof, together with the fees of the fence viewers, in the manner provided in this chapter.

SEC. 811. Where a partition fence running into the water is necessary to be made the same shall be done in equal shares, unless otherwise agreed by the parties, and in case either party shall refuse or neglect to make or maintain the share belonging to him, similar proceedings shall be had, as in case of other fences, and with the like effect.

SEC. 814. [illegible] of highways of the several townships in this State shall be fence viewers in their respective townships.

SEC. 815. Any fence viewer who shall, when requested, unreasonably neglect to view any fence, or to perform any other duty required of him in this chapter, shall forfeit the sum of $5, and shall also be liable to the party injured for all damages consequent upon such neglect.

SEC. 816. Each fence viewer shall be paid by the person employing him, at the rate of one dollar a day for the time he shall be so employed; and if such person shall neglect to pay the same within thirty days after the service shall have been performed, each fence viewer having performed any such service may recover, in an action of assumpsit, double the amount of such fees.

If the party has no property subject to execution, all that could be done would be to have the judgment recorded and wait until he could be reached. The interest would soon make a considerable claim and a farmer would be very unwise to have such a judgment hanging over him. But if he should choose to do so, the debtor would be able to escape payment so long as his property could not be reached by execution.

EXPERIENCE SHOULD BE THE GUIDE.

To the Editor of the Michigan Farmer.

Your paper is the most suitable place for the discussion of the tariff question, because it is purely a farmer's question at the present time.

For the first time in the history of this people, the issue between the political parties has been one that interested the farmers more than any other class. I hope the columns of the MICHIGAN FARMER will be open to the free-traders and protectionists alike, for it is about the only means by which the farmer can be enlightened regarding his interests.

When Cyrus Lee appears in your columns, let him come with something more than the short answer "Yes," to the question "Is protection right?" If it is right the farmer wants to know it by some substantial reason than the Bohemian oat man gives when he takes a clear promissory note. He should know it at the end of a term of years of high protection without asking an agricultural college or tariff commission. The experience of every man is of great value to him if he interprets it aright. Why then this great depression in the midst of seemingly great prosperity? It can't be overproduction, for the wool and wheat crop has hardly been up to the standard the last two years. We must look beyond our farms, we must look to our country where we see the gates effectually closed against foreign commerce, closed about as good as a proclamation blockade could do it, and our boats rotting in their docks; workmen are idle all through the land; strikes are frequent and monopolies stronger. You do not need to look through a board of statistics to see this. It is your every day life. This state of things can be accounted for only by high protection.

SAMUEL CHAPEL.

PARMA, Nov. 23, 1886.

The Horse.

For Telling Horses' Ages.

The full-grown horse possesses 24 back teeth; that is, six in each side of each jaw; these are called molars or grinders. He has 12 front teeth; that is, six in each jaw. Mares have no tushes. The foal has either at his birth or shortly afterward eight milk teeth; that is, four in each jaw; at about 12 months two more milk teeth come in each jaw. These remain unchanged until he is three years old. The mouth of the yearling and two-year-old cannot be confounded. The yearling mouth shows no signs of use, and the corner teeth are shelly only; at two years old these teeth are strong and well grown and the corner teeth filled up. A little before three years the two centre teeth of each jaw fall out and are replaced by permanent ones. A little before five the two remaining teeth are shed, and in their place come permanent ones. The upper milk teeth usually fall out first.

Thus the mouth is completed as to its front teeth; the corner tooth, however, is but imperfectly developed, being at present a shell only; this shell at six years old has filled up and is a complete tooth. This is the difference between a five and a six year old. The tushes appear between three and a half and four years old, and they take nearly two years to arrive at their full growth. These teeth, as the horse grows older, get blunter and shorter, and so to an experienced judge are a sure indication of age. Up to six years old the mouth is in a distinct and periodical state of structural change. There is no difficulty in determining the age up to that date. After that the age must be judged by the shape of the mouth and the appearance of the teeth called the mark. At six years of age the cuts leave the two centre teeth above, at seven the next two above, at eight the outer or corner teeth above.

At nine the two centre teeth below lose the cuts, at ten the next two below, and at eleven the outer or corner teeth below. After a little practice the close observer can scarcely make a mistake. The changes that occur are the same in all horses, or nearly so.—*The Sportsman.*

A Horse's Hind Legs and Shoulders.

Did you ever notice the pleasure a horse seems to get from elevating his forelegs? says a farrier. Leave your horse tied in front of your house five minutes, and he has his forefeet on the pavement and his hind ones in the gutter.

I asked a local horseman why that was, and he told me that it was an action perfectly compatible with the "build" of a horse.

"A horse's shoulders," he said, "notwithstanding their strength are very delicate and very apt to become strained. The raising of the fore feet rests them, and throws the weight on the hind legs. In the stable a horse will always kick out a hole in which to put his hind feet, and those who study the comfort of their horses always make the front part of the stall higher than the back. Besides, this has a perceptible effect on the beauty of a horse, and the prettiest shoulders are always found on horses whose stalls are constructed in accordance with the animal's instinct.—*Toronto Mail.*

The Omnibus Horses of Paris.

According to a correspondent of the *London Field*, the manager of the Paris Omnibus Company states in his annual report that, since the company was formed, it has purchased 57,817 horses, all of which, with the exception of 1,278, were bought in France itself. Some years ago a trial was made of German horses, but it was found that they were as expensive as the French horses, and could not get through the same amount of work. The average number of horses purchased during the last few years has been 2,205, and most of these horses are of the Percheron type, costing about £40 each. The average length of their service is now nearly five years, and as 83 per cent. of them are afterwards sold off at about £20 each—the rate of mortality being only 17 per cent.—their actual cost is reduced by one-half. Formerly, nearly all the horses used in the omnibus service were entire, but the idea that more work could be got out of them than out of geldings and mares is exploded, and there are now about 4,000 entire horses, 4,100 geldings, and 3,900 mares in the company's stables.

Fastest Trotting Time.

The fastest mile against time, 2:08¾, was made by Maud S. by Harold. The fastest time by a gelding was 2:10 by Jay-Eye-See, and the fastest time by a stallion, 2:13¼; by Maxey Cobb. The best mile in a race against other horses, 2:14¼, was made by Maud S., and the fastest two consecutive heats, 2:11 and 2:10¼, by Jay-Eye-See. The three best consecutive heats, 2:12, 2:13¼ and 2:12½, is claimed by Maud S. The fastest three consecutive heats in a race against other horses is 2:16; 2:14¾ and 2:15¼ by Harry Wilkes. The best three consecutive heats by a stallion are 2:15, 2:14½ and 2:15¼ by Phallas. The fastest time in four consecutive heats in a race against another horse is 2:19¾, 2:15¾, 2:17¾ and 2:13¾ by Phallas. Catchfly won the first heat. For two miles the time is 4:43 by Fanny Witherspoon, and for three miles 7:20½ by Huntress. The fastest mile by a yearling is 2:36½ by Hinda Rose, and the best mile by a two-year-old is Wild Flowers 2:21. The three-year-old time, 2:19½, was made by Hinda Rose.

The Saddle Sulky.

A doctor in New York is said to have invented and patented what he terms a "saddle sulky," the axle of which is curved to admit the rear of the horse between the wheels of the sulky, thus permitting the horse to turn upon the centre of motion, which he claims would make it a vehicle much safer than in the ordinary style of sulkies. In many respects it is like riding in a saddle on wheels, as it is to all intents and purposes a part of the horse. The inventor claims that a vehicle of this nature will be of marked value, particularly for riding over rough roads, and for racing purposes it would largely prevent the slewing usually experienced in turning around the curves of a track, thereby tending to increase the speed of a horse and lower his record.

Horse Gossip.

ALLIE WILKES, by George Wilkes, dam by Honest Allen, has been in training at Kalamazoo until recently, and his trainer says he can trot under 2:30.

THE *National Stockman* truly says: "If it is worth from $50 to $100 to be able to tell the buyer of your horse that he is from some noted sire, why will you object to paying a difference of a fifth or a tenth of that amount in service fees? This is something worth thinking about."

MR. R. SWIGERT, of Kentucky, has purchased the English race-horse Kingcraft to head his breeding stable. Kingcraft was sired by King Tom, dam Woodcraft. The price paid was $17,500. Kingcraft won the Derby in 1870, and he is not only highly bred but has proved himself a great race horse. Mr. Swigert had just lost imp. Prince Charlie, and Kingcraft was purchased to supply his place.

MR. J. R. HAGGIN, of California, has imported from Australia the famous race-horse Darebin, thought by many to be the greatest horse ever bred in Australia. He was sired by The Peer, and his dam, bred also in Australia, was by Trader, and grand dam by King Tom. Darbin's last race was for the Sydney Cup in 1870, and he won it in a canter, carrying nine stone eight pounds (134 pounds).

THE horse trade in Texas has grown to very large proportions. Five years ago the number of horses sent from this State did not exceed 5,000 head. Shipments from San Antonio for 1886 foot up more than 50,000 animals. From the whole State at least 75,000 will be exported this year. Within the next few years the sale of Texas-raised mules is going to be a big item in our export trade.—*Inter-Republic (Texas).*

OBSERVER, in the *National Live Stock Journal*, says: "The Arabs placed more dependence upon the dam than the sire. The Americans have reversed the Arabian rule, and place the most dependence upon the sire." We think Observer is wrong in saying the Arabs placed more dependence upon the dam than the sire. Most writers upon the subject state that the breeding of the stallion is more carefully looked after by the Arabs than that of the mare.

IT is noted by Canadian papers that officers of the British army are in Canada West and British Columbia engaged in selecting horses for the army, but that the style of horse required is not plenty. The requirements are that the horse shall be from four to six years old, good color—black or gray preferred—15 to 16 hands high, and broken to the halter. For such horses they are paying $150 per head. It is said to require 40,000 head of horses yearly to supply the wants of the British army, and that horses suitable always find ready sale at a fair price.

IS THIS A JOKE?—The Gosper Horse and Cattle Company have chartered a train of 20 cars to bring their live stock interests from Kansas, which is expected this week at the junction. It consists of one car of red Durham bulls, a Clydesdale trotting stallion with a record of 2:33, a thoroughbred mare for breeding, two miles of piping, household furniture, and many articles for range purposes. The piping will be used to convey water from the Coyote springs to the ranch for stock and irrigating purposes. The company will have the stallion for public service, and, we hear, will be reasonable in price. Costly improvements will be made in the range, and it is Major Witherell's intention to be ranked by none in range progress.—*Hoof and Horn.*

A Clydesdale trotting stallion is certainly a wonder; but the Southwest is liable to produce anything, and possibly Clydesdale stake to trotting at 2:33 gait after breathing Arizo air. It is well that *Hoof and Horn* explains what the stallion is to be used for, as some people might think he was intended for household furniture or piping purposes in connection with those costly improvements.

The Farm

The Potato Crop.

From the November report of the U. S. Department of Agriculture we take the following regarding the potato crop:

"The area devoted to this crop shows a slight increase over that of last year, exceeding 2,240,000 acres. The extension, while slight in nearly all the States east of the Mississippi River, was considerable west of it—much greater than the increase of population in Kansas, Nebraska, California, Dakota, and some other States and Territories. In New England and New York there was a slight reduction, due to the unfavorable report of the crop of the previous year. In the Atlantic and Gulf States, where the previous crop was more satisfactory, there was an enlargement ranging from one to five per cent.

Unfavorable meteorological conditions have attended the crop almost from the beginning. Planting was delayed in many States by excess of moisture, causing some seed to rot in the ground, and inducing a too rank growth of the vines of the early crop; in other sections drought interfered with the germination and growth of late planting. Condition low on July 1; declined rapidly during the month, the injury being wrought by local droughts, beetles, and, in portions of the South, by excessive rains and overflows on low lands. The month of August was marked by a further falling off, the reduction being the greatest happening in that month since 1882. The report then said that there was "little probability of any rally before harvest, as condition has almost invariably further declined" during the latter part of the season. This was fully verified, the last report of condition (October) standing at 81, the lowest with but three exceptions during the nineteen years of crop reporting. This was one point lower than the previous crop, a small one at the same date.

The present returns are of yield per acre, the average for the whole country being about 73 bushels, against 85.8 for the crop of 1884, 91 in 1883, and 78.7 in 1882. This indicates a product of about 165,000,000 bushels, or the smallest crop since 1882. The conditions of the last year are almost exactly reversed; then the East was the section of the poor crops, the West supplying the deficiency; now the yield in New England, New York, and Pennsylvania is but a trifle less than before an average, while that of the West is so low that potatoes are shipped westward for consumption there.

The great part of the damage was done by drought, though there were local complaints of injury more or less serious from Colorado beetles, grubs, and scabs. In the section west of the Alleghanies the early crop was generally superior to the late planting, the extended dry weather in Indiana, Illinois, Wisconsin, Iowa, and Kansas proving less injurious to it. The crop of the Southern States is but little under an average, while that of the Pacific slope is light.

Rot, which caused such serious damage last year after the crop was dug, has been equally widespread this season, but less virulent. As usual, it is much worse in low and badly drained soils, though it is spoken of in some sections as being induced by the heat and parched condition of the ground. It is especially complained of in Missouri and Kansas, deteriorating condition after the crop is harvested, and less serious in parts of Indiana, Illinois, Ohio, and New York.

An Ear of Corn.

Nothing is more familiar to a farmer than an ear of corn. All his life, from childhood up, he has husked it, fed it to stock, or shelled it for the mill; and yet beyond the mere external features of color and size, he has scarcely made an observation. He knows that his cornstalk must have a tassel and the ear a silk, but why either is necessary, he seldom inquires. But in all this there is nothing extraordinary. Men are not in the habit of studying carefully the things that belong to every-day life. Familiarity begets carelessness of observation. To-day we invite our readers, especially the boys and girls, to the study of an ear of corn. Our older readers may join the class if they choose.

An ear of corn consists of a cob with a central pith, the grains attached to this cob and the husk enveloping the whole ear. These parts are arranged in perfect order. This pith is in the center of the cob and is the medium through which the material for the nutrition of the grain is conveyed to it in the processes of growth and ripening. The grains are connected with the pith by a hard ligament, or cord passing through the woody part of the cob. They appear to come off from the pith in pairs, and each pair of grains, in rows extending the whole length of the ear, appear to form a longitudinal section of the cob. By this arrangement every ear has an even number of rows, a fact which many people have observed who cannot tell why it is so.

Horace Greeley, the philosopher and one of the most careful observers of this age, was betrayed into a blunder at this point. In describing the large corn which he saw at the Indiana State Fair in 1853 he says: "Many of the ears had 25 rows of grains on them." Had the philosopher studied the attachment of the grains to the cob, he would have written more wisely.

Each grain consists of a germ, or rudimental plant, and a large deposit of starchy substance which in botany is called the albumen. The germ is placed at the lower part of each grain and on the front side, or that which looks toward the outer end of the ear. To this germ is attached a fiber of silk, so that the number of fibers in the silk exactly represents the number of grains in the ear. Each of these silk fibers is a pistil in the corn flower, while the stamens of the flower are in the tassel. If by any accident, a silk fiber is destroyed before it receives the pollen dust from the tassel, the grain, to the rudiment of which it was attached, will be a blank on the cob.

The husk answers to the chaff in other grains, the remarkable difference being that in the cereals generally, each grain is furnished with its own envelope, or husk, while in the ear of corn the chaff envelops the whole group of grains. It is probable that originally corn conformed to the general law in this respect, and that the present arrangement is an acquired condition, the result of transformation under changed circumstances. There is a variety of corn produced in Mexico and Central America which still retains the husk enveloping each grain.

The point of special note in this study is the remarkable uniformity and order that is maintained in the arrangement of these several parts in a plant, the most flexible and liable to change of any that we cultivate; and the fact that the pith of the cob is the reservoir from which every grain draws its nutriment.—*Indiana Farmer.*

Operation of Land Plaster.

A farmer in Wisconsin calls Prof. Armsby to account for stating, in a bulletin of the Wisconsin Experiment Station, that land plaster does not derive its value from anything it takes from the air, and that its action is an indirect one, wholly on the soil; and in so far as lime and sulphuric acid are deficient in the soil, it acts directly as plant foyd. Prof. A. states in reply to this correspondent, and in support of his position, that "it is a demonstrated fact in science, that the soil itself, without any addition of plaster, is abundantly capable of fixing the ammonia of the atmosphere, whether that conveyed to the soil in gaseous form by the atmosphere itself, or that dissolved out of the air by the rain and thus carried to the soil." And again, Prof. A. remarks, "the amount of ammonia in the atmosphere which the soil can receive from the air is apt to be overestimated. The proportion of ammonia in the atmosphere is variable, but may be put down roughly as one part in fifty millions. We may compute that the air over an acre to the height of 750 feet would contain ammonia enough to make about an ounce of dry clover seed. The amount of ammonia carried into the soil in rain during a year, was estimated by Lawes & Gilbert at 9¼ pounds an acre in a year."

Prof. Armsby further states in substance that the action of the plaster in retaining the ammonia of manure is a different matter. The ammonia in manure is a volatile carbonate, and when the sulphate of lime is brought in contact with it in the presence of water, a chemical change takes place. The lime unites with the sulphuric acid to form sulphate of ammonia, which is not volatile and does not escape. If this compound be dried, the reverse action taken place, and the ammonia then escapes as a carbonate.

Apples Drying off Cows.

A milk producer in Lowell who has been feeding two cows at the rate of one to two pecks of apples per day, finds the cows decreased heavily in their flow, and he therefore cautions farmers against feeding apples to cows in milk. The suggestion is a wise one, for excessive feeding of apples will surely cause injury to the cows. Sometimes they are entirely dried off, and occasionally the results prove fatal. But if fed judiciously apples are most excellent food, increasing the milk of cows and making good beef of dry cattle. Our Lowell contributor asserts that whoever says that one to two pecks per day will benefit a cow, makes a false statement; but he should remember that cows are not all of a size, nor are they all alike in other ways. Many persons have fed those quantities with excellent effects, which would seem to prove his statements untrue. The writer has fed a great many bushels of apples to dairy cows, giving them all they would eat, without experiencing any evil therefrom, but only small quantities were given at first, and the quantity was increased quite gradually. We found few cows that would eat two pecks per day very long, unless they were fed lightly upon other food.

We have known cattle running in orchards where apples were abundant, to become very fat and make excellent beef. We have used excellent milk for several months past that was given by a cow that has been fed liberally on apples, both sweet and sour, and no evil effects whatever have been produced. Every farmer should, if possible, feed out all his windfall apples to some kind of live stock, both for the benefit of the animals and for destroying the apple insects.—*N. E. Farmer.*

Planting Potatoes.

A correspondent of the *Stockman and Farmer* says:

"In planting potatoes the first thing to consider is the soil, which should be a rich clay, well drained, and of moist nature. Next in order would be to plow deep and harrow or drag as fast as plowed. This will make the soil hold its moisture and keep it from getting cloddy. I would recommend clover sod, with as much barnyard manure as could be obtained. I would not recommend commercial fertilizers for potatoes; sometimes they show good results and sometimes they do not. Stick to stable manure, unless you know by experience that fertilizers will pay on your farm.

"Farmers as a rule do not take pains enough with their plowing. I am convinced I can get more clear cash from an acre that is well plowed than I can from an acre that is only half plowed. What I mean by only half plowed is, where it has been plowed by guess, deep here and shallow there, a wide furrow here and a narrow one there, with the furrows standing on edge, or turned over very flat. We can do good plowing just as easily and just as fast as we can 'hog' it over. When dry enough—and be sure to wait until the soil is dry enough to pulverize nicely for potatoes—plow deep and work the ground down fine and mellow, before it dries out. The Acme harrow will prepare the soil nicely, if you get on it and ride, and do so as soon as the plowing is done.

"After the ground is plowed and harrowed ready for planting, take a two horse riding cultivator and put on two shovels, so they will run the desired distance apart. In this way you can mark out two rows at a time. If your land is clean, plant in drills; if not plant in hills. No farmer should allow his land to become so foul as to necessitate his planting in hills for that reason. I think that by planting in drills we can average a much larger yield per acre, and as our object should be to make our land produce the largest crop on the same amount of land, by drill planting we would attain that object. My plan is to plant my potatoes in drills three and a half feet apart, and eighteen inches apart in drills; and I think I can raise one-third more potatoes per acre this way than in hills, and with but little more trouble to keep down weeds. Follow after the marking-out cultivator, dropping pieces eighteen inches apart; then follow with the cultivator, set as you would to hill up the potatoes. By this plan you turn or throw the dirt back, filling up the furrow nicely, then roll with the roller, and your planting is done."

Agricultural Items.

IN Manitoba farmers are punishable by fine who allow certain plant pests to flourish in their holdings.

LIBERAL feeding of the soil is as essential as the feeding of stock—one cannot do well without it.

THE stomachs of several cattle which died near Whitmore, Ia.; were found to be lined with hair taken in with the filthy water they were compelled to drink.

A CORRESPONDENT of the Indiana *Farmer* figures that if he can raise 75 bushels of merchantable potatoes and 13 bushels of culls to the acre, and get 50 cents per bushel for the good ones, he can net $30 per acre at the business.

THE Bohemian Grain and Cereal Company, of Ypsilanti, this State, is included by the *Rural New Yorker* in its list of frauds, its agent having got into trouble at Rochester, N. Y. Michigan farmers have often been warned to beware of this business.

PRINCESS, the fine English hackney mare, recently died suddenly. She had been carried about from one show to another, spending most of the time in the cars, the stall and the show ring. High feeding for months without proper exercise had made the horse "soft." When turned into the pasture on returning from a show, she was so glad to get her liberty that she spent the first hour trotting at full speed up and down the pasture. This in her "show" condition, engendered a chill which resulted in inflammation of the lungs, and death.

EIGHTY-THREE tons of Louisiana sugar cane were treated by the new diffusion process so successfully used with sorghum, at the Fort Scott, Ks., sugar works. The cane was shipped there with a view to ascertaining whether the yield of sugar would be increased by the new method of handling, and the results were very satisfactory, the increase being 40 pounds to the ton, of fine quality sugar. New factories will at once be erected, in consequence of this discovery, and sugar cane will find sorghum a formidable rival.

A CORRESPONDENT of the *N. Y. Tribune* says: "An exceedingly useful tool, which should be on every farm, is 'a coal shovel.' I mean those large, flat-blade shovels—mine has a blade 14 inches wide—which are used for handling coal. One who has never used it will be surprised to see how many uses it can be put to. It is excellent for handling potatoes, as it never cuts them, and more speedy and convenient than a scoop for shovelling chaff and sawdust; we have abolished all other shovels from the stable, as we can scrape out the stalls and clean the stable so quickly with this.

PROF. SANBORN, of the Missouri Agricultural College, says: "The Fultz among 150 varieties tried here, has been retained for field use as our best wheat for upland soil, when all points are considered. The Clawson, Bennett, White Rogers, Spark's Swamp or Mediterranean have proved to be great yielders on this soil. Each one of these, on the score of yield, ranks the best with us, though no better than the Fultz for the average year. I occasionally hear it remarked that the Fultz is running out. My experience leads me to believe that it is the farm, and sometimes the farmer, that is running out. At the college farm we select the heaviest, plumpest seed, rotate our crop, following clover or wheat, and yard our cattle and manure our crop."

The Poultry Yard.

Cause of Gapes in Fowls.

The prevalent disease of poultry known as "gapes" is more destructive than all others which affect these birds together. In places it is found impossible to rear chickens, every one dying at an early age from the suffocation caused by the presence of these parasites in the bronchial tubes. This serious trouble is due in a great measure to the general absence of knowledge in regard to the nature of this disorder and the conflicting testimony of those who suffer by it. The character of the disease is well known to scientific experts, and from this knowledge a very effective method of prevention may be practiced; cure, however, is troublesome and uncertain. The cause of the disease is a parasitic worm once named *Strongylus filaria*, but now known as *Syngalus trachealis*. And just here arises difficulty number one, for as soon as ordinary persons have become acquainted with the pest by its former name some newly fledged professor, jealous of all antecedents, gives it a new name, and thus leads to the supposition that some other creature is referred to and the public confidence in scientific statements is destroyed. The parasite, however, is the same although it may have two names, and, knowing its habits its attacks may be evaded.

All young animals are subject to the attacks of the parasitic bronchial thread worms; but young chickens, turkeys, quail, partridges, (or pheasants,) lambs, and calves suffer most from them. The worms inhabit the bronchial tubes or air passages of the throat or trachea, and causing, by the irritation of their motion, a secretion of froth in which they gather in bunches, they greatly impede respiration, until the animal gradually pines away for want of the necessary supply of air and oxygen to the lungs, and they finally perish. Birds gape and stretch their necks; lambs and calves cough and gasp for breath; but, unless helped by proper remedies, they invariably die, and in some cases it is found impossible to rear these animals.

How the pests gain access to the throats of their victims is an unsettled question. From the best knowledge had as to the habits of the worm it is supposed that they infest older animals more or less and live and mature in the intestines of these. Being discharged in the excretions from the bowels, when mature and filled with eggs, the eggs are dropped upon the ground or the grass and are picked up by the young animals, when they are hatched and produce the young worms. These crawl from the stomach up the gullet to the throat, where they remain and pass the early stage of their life. This theory is substantiated by the certain knowledge that no young animals are affected except those which pasture or feed upon ground that has been run over or soiled by older animals.—*N. Y. Times.*

FOR the roof of the poultry house, Stephen Beale says: "I have sometimes made a very cheap roof covering, and also used the same for the sides of wooden houses, by first tarring the wood, and then while it was wet laying on sheets of brown paper, tarring the whole over again two or three times. This, if each coat is allowed to dry before the next is put on, makes a splendid covering."

THE *Kansas Farmer* advises us that there is just as much more money in good fowls, accordingly, as there is difference in value between good and poor stock. One variety of fowls will excel another in one or more respects. Some are good layers, others are good market fowls. The mongrels are usually "birds of feather," in the same sense that a grade hog is a "rail-splitter." If there is any good in having blooded stock, there is just as much good in having blooded fowls.

A CORRESPONDENT of the *Country Gentleman* says: "When I was a lad and first had the care of poultry, I used to be bothered with the gapes until I began using salt. I do not remember having a single case of the gapes in over twenty years; so I think it is a sure preventive, if taken in time. Salt the feed as if you were going to eat it, unless you chew tobacco; if you chew, you might get in more than is necessary, for tobacco-chewers generally use more pepper and salt in their food than temperate people. For cholera, before the fowls get it, and when hot weather comes on, dissolve some copperas in water in an old dish, and mix that with the water that is given to the hens, and you will not be troubled. Alum will do if you cannot get copperas, but I prefer the latter. I give it to my hens every few days, and they are healthy and lay the year round, and at present the hens' combs are a nice bright red, which is a sure sign of good health. If the tips are slightly purple there is danger; and if you do not have copperas or alum, take nearly a handful of ordinary condition powder, such as you feed your horse, and stir it in about a peck of feed if you have quite a flock, and less if you have only a few fowls. If you do not have any of the above, get white oak bark, steep it till quite strong and give them. At all times keep good clean water for your poultry to drink. Cold tea is good for poultry, such as is left over from supper; give them the leaves also where they are in yards."

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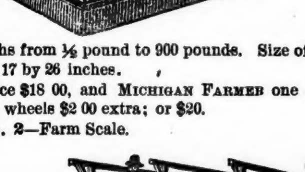

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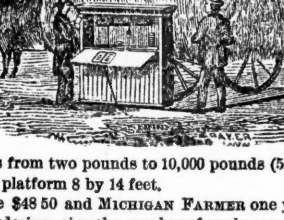

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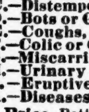

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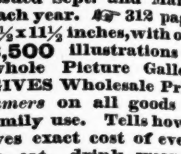

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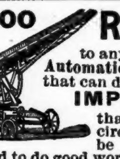

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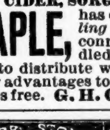

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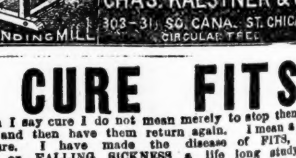

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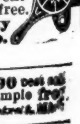

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Horticultural.

THE GOOSEBERRY AND CURRANT SAW FLY.

Prevention and Remedies.

Prevention.—The best mode of prevention is to destroy the grubs while in the ground, and this may be done by deep cultivation round the fruit bushes with a spud, and by the application of copious dressings of fresh lime, or gas lime, or pure pungent soot, worked well into the soil. The clods thus dug up should be well knocked to pieces with the large eyes of "prong hoes" so as to dislodge the cocoons within them. This operation may be performed between October and 1st of March, and after this the ground may be beaten down hard with spades, or trodden down hard, to prevent the escape of insects. All this would only be done of course after a severe attack of grubs in previous spring. In gardens or small plantations other means may be adopted, such as soaking the ground around the fruit bushes with liquid manure and removing the soil near them. These methods can hardly be carried out in large plantations.

Remedies.—Quicklime powdered upon the fruit bushes early in the morning before the dew is off the leaves is a very useful remedy. Syringing the bushes with a strong wash of water and soft soap, consisting of from ten to twelve lbs. of soft soap to one hundred gallons of water, is an admirable remedial measure. The essence from half-a-pound of tobacco may be mixed with this, or better still, the bitter extract from four or five pounds of quassia chips. Petroleum soft soap may also be used at the rate of half a gallon or three-quarters of a gallon to one hundred gallons of water. Paraffin oil in the proportion of a wine glass to three gallons of water has been found to remove the grubs, but if applied when the young gooseberries are formed this is said, or fancied, to have imparted some of its flavor to them. Washing or syringing a large plantation would be a tedious work. Fortunately the grubs generally appear here and there in patches, and not simultaneously upon a large area of fruit land. They should be taken in time. Directly a bush is seen to be infested active measures should be adopted, and when it has been limed or syringed the ground beneath must be hoed, or well stamped down to kill the grubs which have fallen off. As there are two broods in some cases care will be required that none of the grubs that fall escape. Hellebore, *Veratrum*, sprinkled in the form of powder upon the fruit bushes has has a good effect in clearing off the grubs. This is a deadly poison, and if any of it remained upon the fruit serious consequences might ensue. There are records of persons having been made seriously ill from having partaken of fruit after the had bushes been dusted with powdered hellebore. Gooseberries are picked very young and green for tarts and preserves, and it frequently happens that a portion of the crop of each bush in large plantations is picked green for these purposes if the price is good, so that it would be highly dangerous to apply hellebore even in these early stages. Hellebore is used extensively in America as a remedy against this and other insects. Natural enemies have been created against this insect, as against many other insects that are destructive to crops. Among these may be cited the ladybirds, *Coccinellæ*, which eat the eggs, and have been seen attacking the grubs in their various stages. Also the larvæ of the *Chrysopa perla*—the Golden Eye, or Lace-wing, a fly of the *Neuroptera* and the family *Hemerobiidæ*—have been noticed devouring the grubs just after they have come from the eggs. There is also an ichneumon fly of some species which deposits its eggs in the eggs of the *Nematus*, as may be evidently seen by the dark color under their transparent skins. In America, Professor Riley discovered a similar parasite upon the *Nematus ventricosus*, a species allied to the *Nematus ribesii*. This he called *Trichogramme pretiosa*. Professor Lintner also confirms this.—*Prof. Whitehead, in Horticultural Times (Eng.)*

Failure and Success in Peach Growing.

In 1880 we were desirous of engaging in the culture of the peach. Our soil was tenacious enough, when burned, to make a passable brick. We were advised (advice is always cheap) that our soil was unfitted for the peach, and that no matter how often we tried, our best efforts would result in failure. True, peaches did not naturally thrive in our soil from some cause or causes, and we never saw even a tree of natural fruit live long enough to mature a single crop.

We do not believe in the word failure. We tried, what all said we could not do, *i. e.*, to successfully grow the peach. We began, as we have always advised our readers, on a small scale, planting only sixteen trees, fourteen of these, before the year was out, died naturally and easily of the yellows, or something like them. The other two looked very sickly, but gave an appearance of a remaining year of life. We thought we had gone far enough in peach growing and halted a year to investigate the causes of our failure. We studied the subject carefully, and learned among other things, that no matter how barren the soil, the peach tree that was planted near the house where it received a copious supply of dish-water, sweepings, ashes, and the like, flourished for many years, while trees only a few feet distant not receiving the same treatment were miserable failures. We also found that the storm of October 23, 1878, which caused the waters of the Delaware Bay to rise far enough to cover five or six feet deep, for several hours, some of the peach orchards in our vicinity, killing oak and other timber, was, also, supposed to be fatal to the peach tree. Many of the orchards that were overflowed were suffering from the yellows, and were considered worthless. Some growers thought of grubbing up their trees, supposing them to be ruined by the salt water that had overflowed. The following spring, 1879, they began to show an unusually vigorous growth, and the salt water instead of injuring them gave them increased life and vigor, showing no signs of failing in its good effects the three following seasons. We, also, found those orchards that grew nearest the salt meadows had always been the most healthy and long lived, and, also, those farmers who manured their orchards with manure made from salt hay were the most successful.

In carefully examining the matter we believed that if we should apply salt as was done by the overflow, caused by the storm, or potash in some form, as shown by the health of the tree near the house, that we could grow peaches. In looking for a fertilizer to supply the deficiency in the soil we thought we could find it by the use of either ashes or the German potash salts. We were sufficiently encouraged to again try peach culture. In 1881, we planted forty additional trees and manured them with heavy applications of kainit at the rate of one ton per acre. On some we used unleached hard wood ashes, from eight to twelve quarts per tree. The trees all grew finely; those fertilized by the kainit grew the best, and were very promising until a mistake made in digging the earth away from them in the fall as recommended by some writer, caused the water, during winter, to stand around them. This, freezing, ruptured the bark and killed nearly half of them. We manured again with kainit and bone dust. One-half ton of kainit and a quarter of a ton of bone per acre. In 1883 we were sufficiently encouraged to plant 200 more trees, some of which grew four feet the first season. Those who were so sanguine that we could not grow the peach were now sure that although we had succeeded in growing the trees we could not the fruit. This we did not believe. Our trees formerly planted were healthy, vigorous and growing luxuriantly. In 1884 we planted 1,500 trees, using the same fertilizers with the addition of a hundred pounds of nitrate of soda. All the trees we planted were the refuse of a nursery and considered worthless for planting. With less than one-half dozen exceptions the whole 1,500 made a growth the first year from four to six feet, stout and thrifty. In 1885, our first planted trees began to fruit, which was very satisfactory. The present year all the trees are making wood rapidly. Four year old trees have made this season four feet of new wood, besides carrying a large crop of fruit, but no signs of yellows appear. We propose the coming spring to plant still more largely, using the same fertilizers and treatment of the orchard as we have for the last six years, believing that with us as it would be with others, the means we have employed in peach culture, will be successful.—*Farm and Garden.*

The King of American Fruits.

The apple is full of vegetable acids and antiseptics—enemies to jaundice, indigestion, and that dreaded member of the human system, a torpid liver. It is a gentle spur and tonic to the whole biliary system. Chemists also tell us that the apple contains a greater per cent of phosphorus than any other fruit or vegetable—which makes it a proper food for the scholar and sedentary man, feeding his brain, and stimulating his liver. This was probably the view taken of the apple by that good old clergyman of whom John Burroughs tells us, who, on pulling out his pocket handkerchief in the midst of his sermon, pulled out with it two bouncing apples, that went rolling across the pulpit floor, and down the pulpit stairs. These apples were, no doubt, to be eaten after the sermon, on his way home—they would take the taste of it out of his mouth. Then, beside, it would be impossible for a minister to grow dull or tiresome with two big apples in his coat-tail pockets. He would naturally want to hasten along to "finally," and the apples. Moreover, we must not forget that the apple is full of sugar and mucilage, which make it highly nutritious. The English extol the apple in the highest terms. Mr. William Robinson, a great horticultural authority of London, pronounces the American apple "the grandest fruit that ripens under the sun." And well he may, for the English apple is an insipid, tame affair, compared with the solid, aromatic, sun-colored and sun-steeped fruit of our northern orchards. In the humid, cloudy and foggy climate of England, the maple tree yields no sugar, and the apple tree no such sweet, delicious fruit as do our Tolmans and Franklins. "The grandest fruit that ripens under the sun." That may sound extravagant—but is it not true? What single fruit is adapted to so universal use, and to such universal taste? It compasses, in its eatable, fresh condition, in all the markets of the temperate-zoned world, eleven months certainly of the yearly round, and in extreme instances, the two ends of the year meet, with apples still upon the table. Like bread, one never tires of the apple. Of what other fruit of the tropics or the temperature climate can it be said that everybody likes it at all times of the year? Pears, plums, grapes, oranges, figs, dates—run through the entire list, and the apple will outlast them all. While the market is supplied with corky oranges, picked under-ripe, or with canned and preserved fruits from different climes, as insipid as they are costly, the northern-grown and northern-ripened apple, full to the bursting of the stored-up richness of the ripening autumn sun, takes its place on the fruit stands—a whole length ahead of them all, cheap in price, and appealing to the satisfaction of every taste.—*Prairie Farmer.*

Keeping Apples.

A correspondent of the *Country Gentleman* says:

"Apples should not be pulled off by main force; the stem may tear out and leave a wound in the flesh which will rot. There is a knack in picking neatly. The stem should be broken off by the end of the thumb thrust against and under the forefinger. Neither should they be handled roughly, nor poured down into a barrel.

"The time for picking will be determined by the latitude, the season and the variety. The Rome Beauty should be picked a week before the Russet, and the Tulpehocken a week before the Rome Beauty. If the autumn has been dry and hot, apples should be gathered earlier than in a cool, moist season. An apple whose stem begins to cleave away from the wood has hung on the tree too long; it will drop soon, and even if plucked soon, it will not generally keep so well as if it had been gathered sooner.

"It is a great mistake to put apples into barrels or boxes directly after they are picked. In the first place the fruit is yet hard, the skin being fully distended and brittle, the surface plump and smooth. In this condition the skin is easily ruptured, and the oxygen of the atmosphere entering the puncture, induces decay. The cells composing the skin are, during the process of growth, constantly filled to their utmost capacity with a watery secretion; and in a very rainy season this accumulation of moisture sometimes bursts the skin, but less perhaps in the apple than in the peach, the plum and the orange. If the fruit hangs on the tree long enough, this condition of fullness and tension will gradually abate, the skin will become very slightly wilted, and a shrinkage of bulk will take place. But the apple should be picked before these symptoms of perfect ripeness appear; and the curing process of nature must be accomplished by art; in other words, by the sweat. The sweat is simply the discharge of the superfluous moisture of the skin; it is the same as the initiatory step of drying the fruit. Dried fruit will keep indefinitely; an apple with a properly dried skin will keep better than if the skin has not been allowed to dry.

"For a month or more after picking, apples should be kept in a cool, dry place, not more than three or four deep, to allow the sweat to escape. One year we had some very nice apples, and a neighbor engaged a number of barrels of the choicest russets. He insisted on having them placed in barrels at once, while we laid our own under the trees and covered them lightly with straw. When he came to remove them he was mortified, and not wholly without suspicion, when he found them already much rotted, while our own were sound.

"Apples may be kept very plump and juicy in a pit, like potatoes, and taken out by installments through the winter to make cider. The pit should not be covered so deep with earth by four inches, as potatoes are; and a wisp of straw should be left in the top of the pit and covered with a board, to exclude rain and permit ventilation. But they should be well sweated before they are covered up for the winter.

"The old time New England way was to have a series of shelves in the cellar, on which the apples could be sorted over. No apple was to be used until it was specked. I find a better way is to barrel them up tight when the sweat is fully over, set them in the cellar, open a barrel at a time, and use them all up before another one is opened. They keep better this way."

The Introduction of the Le Conte Pear.

It is decidedly probable that more has been written within the past two years, concerning the introduction into this country, and the peculiarities of the Le Conte pear, than concerning any other fruit-tree in America; much has been written inaccurately, and attempts at correction have been equally unreliable. During the spring of 1881, the writer traveled as newspaper correspondent through the southeastern counties of Georgia, and finding the people enthusiastic concerning the alleged desirable qualities of the tree and its fruit, inquiry concerning its origin and character naturally followed, and these facts, furnished upon undisputable authority, were gathered:

During President Polk's administration, a gentleman by the name of Le Conte was an attache of the United States legation to Japan. Upon his return he brought two pear cuttings, one of which he gave to his sister, residing in Liberty County, Georgia, and now the wife of Judge Harding, of that county. The other was given to a friend residing elsewhere, and did not live. The first was planted near Dorchester, in the above county, and thrived. In the spring of 1881 it was forty years old, was a large and vigorous tree, and in full bearing. From this mother-tree have come all of the Le Conte pear trees in this country, taking this name from the gentleman who had introduced it. It is situated on the farm of the above-named Judge Harding, who has an extensive nursery and makes a specialty of these trees.

Horticultural Notes.

GRAPES weighing from five to ten pounds per bunch are so frequent in California that no mention is made of them. A bunch weighing 16 lbs. was, however, thought worthy exhibition.

THE production of the Wilson strawberry, says Parker Earle, was the beginning of a new era in strawberry culture, just as the introduction of the Concord grape stimulated grape culture and gave rise to hundreds of other sorts.

PARKER EARLE thinks there has been as yet no absolute over-production of good fruit, but the cause of low prices is defective distribution. When fruit, by cheap and rapid transportation, is brought within the reach of everybody, there will be none too much.

THE Kent County Horticultural Society made a large and interesting exhibit of chrysanthemums at the last meeting. J. A. Hovey showed 24 distinct varieties; Wm. Dunn had a plant of the original pink variety brought from the Chinese Empire, and many others showed beautiful specimens of this popular autumnal flower.

NEAR Wellington, Southern Kansas, is a hundred acre orchard, which is quite a novel sight to northern people. The trees are set one rod apart, and branched out from the ground, so that the fruit could be gathered by the aid of a low step-ladder. The Ben Davis is a favorite variety. The quality of the fruit is hardly as good as that of northern orchards.

APPLES in a dried state are made use of in France for the manufacture of cider, and they are almost wholly of foreign product. This fact goes to show that the surplus of the American crop can be dried and find a foreign market. But for that market it may be borne in mind that pared apples are subject to a duty, while those unpared are not so; if sliced and dried with the skin on and core in they are duty free.

A WRITER in *Gardening Illustrated* says he has found sulphate of potassium an efficient remedy for mildew on the strawberry. Some were treated at the rate of a quarter of an ounce to the gallon, and others with double that strength. The mildew was killed in each case, and the fruit came off clean. No trace of injury was found to the foliage. With sulphur the foliage is burnt when a few hot days occur. This treatment is recommended for rose-growers.

THE *Gardeners' Monthly* says: "It is by no means demonstrated that a want of potash in the soil is a safeguard against yellows. There are plenty of instances where trees have the yellows in soil over-abounding in potash. It has been clearly demonstrated by Professor Penhallow, that there is a deficiency of potash in the wood of trees affected by yellows; but this may be from the diseased condition of the tree, depriving the tree of its usual power to assimilate what it ought to do; or from properly using the vital power over the potash element, and not from any scarcity of potash in the soil itself.

THE *Country Gentleman* says: "Amid many new and highly lauded varieties of the grape, we have not seen any which appear to promise better than the sort known as Empire State. (We should prefer a more appropriate name.) Its handsome clusters and excellent flavor, and its healthy growth are not always found in one sort. It is stated to be a cross of the Hartford and Clinton, and to be wholly a native sort; but George W. Campbell, who is high authority on grapes, thinks that its fine flavor is partly owing to a dash of the foreign element in its character."

M. CHARLES GIRARD, chemist of Paris, recently amused himself by investigation of the ingredients of a beautiful red currant jelly, charmingly put up for export to the United States. There was not an atom of fruit in the mass, as was demonstrated by the adding to it of methylated alcohol, which would have turned it green had it contained any fruit acid. It was found to consist of gelatine, sweetened with glycerine residue, colored with pichsine (a poisonous mineral extract) and flavored with no one knows what. A great many people in this country imagine no currant jelly so good as that which is imported from France.

Catarrh Cured.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Dr. Lawrence, 212 East 9th St., New York, will receive the recipe free of charge. s14-eow-15t

Apiarian.

Rendering Comb into Wax.

C. P. Dadant read a paper before the Indianapolis Convention on this subject, in which he said:

The rendering of comb into beeswax can be effected by artificial heat, or by the sun's rays. The heating on stoves or by steam is the most usual way, but many inexperienced persons spoil their wax either by melting it without water, or by overboiling, or by using dirty iron kettles. When comb is melted over a stove, it is not absolutely necessary to have an apparatus expressly for the purpose. Any ordinary boiler will answer. A great deal of water should be used, and a moderate heat applied. When the wax is thoroughly melted it can be dipped off the top, by using a piece of wire-cloth shaped like a dipper, hung in the kettle to prevent the coarsest impurities from being dipped out. We have never seen any old combs, no matter how old, that did not make nice yellow wax when treated in this manner, or by the use of a wax-extractor. As a matter of course a good wax-extractor, if properly used, will give cleaner wax at the first melting.

If steam is used to melt comb, it should not be turned directly on the comb, but into the water below it, the steam often damaging the wax, and making it grainy and green looking. This same unpleasant result is sometimes attained by over-boiling.

If some wax remains in the dregs, it is not advisable to throw away these residues. We have never yet seen any process that separated them so completely that they could be called worthless. Wax-bleachers usually press the wax out of them in a small press while hot. But a cheaper way, on a small scale, is to preserve them, or rather the best of them in a box, exposed to the weather, until more comb has to be melted, when they can be melted again with it. The exposure to the weather dissolves the foreign substances, but not the wax, which, to all appearances, is indestructible.

Cappings of honey are melted in the same manner as old combs. It is well, however, to work them, first, in warm water to separate the honey that is left. This sweetened water can be used to advantage in cider or wine-making, and for vinegar. Honey-vinegar is the very best that is made.

We have many times heard it said that it did not pay to melt old combs, but this is a mistake. It is not advisable to melt them with nice new comb, but any apiarist who will try rational methods, can find a profit in melting the very oldest and dirtiest combs that can be found.

The heat of the sun, in rendering comb, makes the finest beeswax, as it not only melts it, but partly bleaches it, and we have to thank our Italian brothers for the first idea of this, as well as for invention of the extractor. Thus far, however, little use has been made of this discovery, but the time is not far distant when the solar extractors will be as plentifully found as steam or stove extractors. This method will have the advantage of giving clean wax at the first melting, without any danger of spoiling it.

JAMES HEDDON, of Dowagiac, has a crop of about 30,000 pounds of clover and basswood honey.

A FIRM of apiarists, brothers, living at Dundee, Ill., have just sold their crop of honey, weighing 38,000 pounds, for $5,000, cash down.

BEESWAX sells for 20 to 25 cents per pound, but as every pound is made at the expense of about 20 pounds of honey, its production costs the bee-keeper much more than he receives for it.

IN reply to a question as to the expediency of keeping bees over winter in the centre of a strawstack, James Heddon thinks they would be well protected, if the straw was stacked to turn water. J. E. Pond agrees, if care is taken to prevent excess of moisture, which he believes a greater evil than cold.

A CANADIAN bee-keeper has discovered a new use for basswood shavings. He was pondering the feeding problem when an idea occurred to him, which he tested as follows: "I filled everything that would hold honey and syrup, then crammed the vessels loosely full of shavings, heaping some on top, and I had daisy feeders to put anywhere I wanted, either behind the loose division boards, or in empty upper stories, raising the quilt at one corner to let the bees pass up to the feeder. The rapidity with which these were emptied was something remarkable. Of course, in feeding from anything except wood, I was very careful to have at least one shaving hang over the edge of the vessel. In feeding I found that it made little difference whether honey or sugar syrup was used, though I prefer for fall feeding a mixture of half good honey and half very thick or granulated sugar syrup."

A CORRESPONDENT of the *Agricultural Gazette* says: "Owing to the very changeable and snowy weather, with but little evaporation, hives not thoroughly protected or covered with woolen or other cloth material are likely to be dripping with wet. On the first opportunity remove cloths and substitute hay or dried grass instead. Also change or clean floor boards that are at all damp. These should be fitted with a perforated zinc floor, with a sliding shutter beneath to where all debris falls, thereby keeping the bees more comfortable, healthy, and saving them a great amount of labor. It is too early yet to speak of feeding; but careful watch should be kept over all stocks, so that none suffer from want. Owing to the nature of the past three months much meat has been consumed by the bees attempting, and many actually breeding, so that with honey consumed for secreting wax to cover brood cells, and that consumed by the young, those hives with insufficient food at the end of autumn are sure to suffer, which a timely feed will prevent. The bee-keeper alone must satisfy himself of the actual state of his hives, which, at this season he will have plenty of time to inspect, as well as making preparations for the summer's campaign.'

NEW ADVERTISEMENTS. NEW ADVERTISEMENTS. NEW ADVERTISEMENTS. NEW ADVERTISEMENTS.

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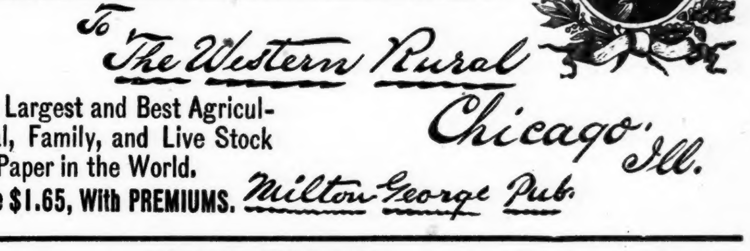

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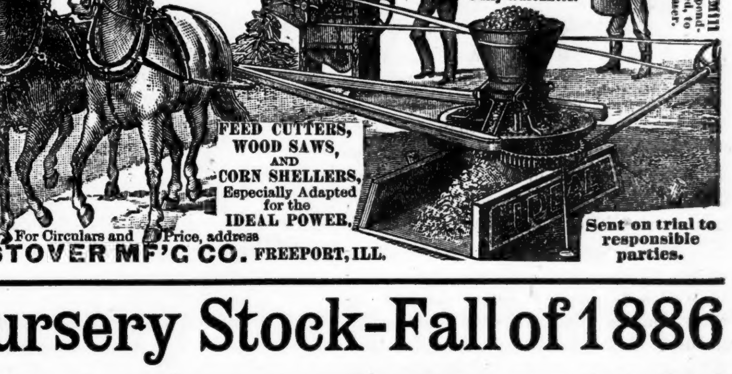

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Bay City & Saginaw Mail..	*10:35 a m	*8:30 a m
Bay City & Ludington Exp	*3:50 p m	*1:10 p m
Bay City & Saginaw Exp..	*10:00 p m	*5:30 p m
Bay City & Lud'gton Exp.	†2:45 a m	†11:30 p m

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	Depart.	Arrive.
*Morning Express.......	6:50 a m	11:45 a m
*Through Mail..........	10:30 a m	4:50 p m
Grand Rapids Express..	4:30 a m	9 45 p m
‡Holly and Saginaw Ex.	7:20 p m	8:00 a m
†Night Express.........	10:25 p m	5:20 a m

* Daily, Sundays excepted. † Daily. ‡ Saturdays excepted.

Night Express has a Wagner Sleeper from Detroit to Grand Rapids.

Grand Rapids Express has parlor car attached to Grand Rapids.

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W. J. SPICER, General Manager, Detroit. E. J. PIERCE, City P. & T. Agent, Detroit

Grand Trunk Railway.

Leave.	Depot Foot of Brush Street.	Arrive
*8:00 a. m.	...Toronto, Mont. and east..	§9:45 a. m.
*12:00 m	..........Port Huron..........	*3:00 p. m
*4:20 p. m.	...Port Huron Express.......	*6:10 p. m
11:00 p. m.	...Toronto and Mont. Ex...	*9:00 p. m
	GREAT WESTERN DIVISION.	
§6:25 a. m.	.......Atlantic Express......	§8:35 a. m.
§12:05 m.	.......Fast Express..........	§1:45 p. m.
	.......Pacific Express.......	§8:55 p. m
*5:50 p. m.	..London Accommodation...	*5:50 p.m
§12:00 mid-night	.New York & Boston Ex'p ....(Limited).........	

§Daily. *Except Sunday.

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Chicago Trains.	Leave, going west.	Arrive, from west.
New York Limit'd Exp.	§1.30 p m	§10.45 p m
Mail, via Main & Air line	*7.00 a m	*6.00 p m
Day Express............	*9.10 a m	*6.45 p m
Kal. & 3 Rivers Accom'n	*4.00 p m	*11.45 a m
Evening Express........	§8.00 p m	*7.30 a m
Pacific Express.........	§9.15 p m	§6.00 a m
GRAND RAPIDS TRAINS.		
Day Express...........	*9.10 a m	*6.45 p m
Grand Rapids Express..	*4.00 p m	*11.45 a m
Night Express..........	§9.15 p m	*6.00 a m
SAGINAW AND BAY CITY TRAINS.		
Bay City and Saginaw..	*8.35 a m	*9.00 p m
Mack'aw & Marq'tte Ex.	*5.40 p m	*11.10 a m
Night Express..........	†11.00 p m	*6.05 a m
TOLEDO TRAINS.		
Cincinnati Express....	*8.25 a m	*5.25 p m
St. L., Cin., Clev. & Col's	§3.00 p m	§11.40 a m
Grosse Isle Accomoda'n	*5.05 p m	*8.20 a m
Cincinnati Express.....	§7.20 p m	§8.10 a m
Toledo Express.........	§9.00 p m	§10.50 p m

Canada Division

Buffalo and Toronto Trains.	Leave, going east.	Arrive from east.
Atlantic Express.......	§6.10 a m	§8.45 p m
Accommodation.........	*5.00 a m	*8.45 p m
Fast Day Express.......	§12.05 p m	§1.05 p m
New York & Boston Ex.	*7.15 p m	‡5:20 p m
Limited Express........	§10.55 p m	§8.05 a m

§Daily. *Except Sunday. †Except Saturday. ‡Except Monday.

CHAS. A. WARREN, City P. & T. Agt, Detroit. O. W. RUGGLES, Gen'l P. & T. Agt., Chicago, Ill.
Nov. 1, 1886.

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WEST, Read Down. †A M.	†P. M	Time Table. In effect Nov. 14 Le've / Arr'e	†A. M.	EAST, Read Up. P. M.
....	5 40	...... Detroit	11 10	
†A M.	*A M.		P. M.	P. M.
7 00	6 50	.... St. Ignace	8 30	5 55
7 42	7 16	...... Moran	8 01	5 00
8 15	7 35	...... Palms	7 41	4 15
8 28	7 43	...... Ozark	7 34	4 00
10 25	8 52	.... Newberry	6 21	2 05
11 00	8 59	.... Dollarville	6 14	1 45
11 25	9 14	.... McMillan	6 00	1 15
12 20	9 40	...... Seney	5 15	12 35
1 07	10 06	...... Walsh	4 49	11 40
....	10 42	.... Reedsboro	4 15	....
2 30	11 00	.... Munising	3 58	10 00
3 25	11 31	.... Au Train	3 25	9 05
3 48	11 38	.... Rock River	3 17	8 45
4 05	11 50	...... Onota	3 06	8 25
4 26	12 05	.... Sand River	2 50	8 00
5 30	12 40	.... Marquette	*2 15	†7 00
†A.M.	†P.M.	L've / Arr.	P.M.	A.M.
....	12 50	.... Marquette	2 00	....
....	1 40	.... Negaunee	1 25	....
....	1 55	.... Ishpeming	12 58	....
....	3 05	.... Republic	11 50	....
....	6 35	.... Calumet	†8 15	....

Central Standard time. *Daily. †Daily, except Sunday. ‡Daily, except Saturday.

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Lake Shore & Mich. Southern R'y.

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	Leave.	Arrive.
Cincinnati, Colum's and Cleveland Express....	7:00 a m	5:05 p m
Chicago Express.........	7.45 a m	6 30 p m
Adrian, Toledo, Cleveland & Buffalo Express	3.00 p m	5.25 p m
Fayette, Chicago & Cincinnati Express.......	6:00 p m	10:30 a m

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MICHIGAN FARMER AND STATE JOURNAL OF AGRICULTURE

DETROIT, TUESDAY, NOVEMBER 30, 1886.

This Paper is Entered at the Detroit Post-office as second class matter.

WHEAT.

The receipts of wheat in this market the past week amounted to 178,805 bu., against 238,898 bu., the previous week and 132,349 bu. for corresponding week in 1885. Shipments for the week were 145,133 bu. against 215,549 bu. the previous week, and 161,639 bu. the corresponding week in 1885. The stocks of wheat now held in this city amount to 1,474,578 bu., against 1,629,854 bu. last week and 1,718,731 bu. at the corresponding date in 1885. The visible supply of this grain on Nov. 20 was 59,551,351 bu. against 58,322,548 the previous week, and 54,535,343 bu. at corresponding date in 1885. This shows an increase from the amount reported the previous week of 1,228,803 bu. The export clearances for Europe for the week ending Nov. 20 were 1,412,218 bu. against 1,211,303 the previous week, and for the last eight weeks they were 8,626,463 bu. against 2,874,511 for the corresponding eight weeks in 1885.

Wheat showed alternate spells of weakness and strength the past week, with a quiet market the rule. Sales in this market for the week of spot and futures aggregated 1,498,800 bu., against 1,435,000 the previous week. At the close on Saturday the market showed more strength than for some days, and the range of prices about the same as on the previous Monday. Yesterday the market here opened strong and higher, weakened a little, and finally closed strong at a sharp advance. Chicago was also higher and active. New York was quoted higher, with a good export demand. Last reports from all points were the strongest of the day. Liverpool was firm, with holders offering their stocks only moderately. The visible supply only increased 20,000 bu. the past week. Over half a million bu. were destroyed by fire on Saturday last at Duluth.

The following table exhibits the daily closing prices of spot wheat from November 1st to November 29th inclusive:

	No. 1 White.	No. 2 Red.	No. 3 Red.
Nov. 1	76	77¼	76
" 2	..	..	..
" 3	75⅞	77	75¼
" 4	75¾	76½	75½
" 5	75½	76¼	75
" 6	75½	76⅜	74½
" 8	75½	76⅜	..
" 9	76	78	..
" 10	75¾	..	75
" 11	75¾	76½	74½
" 12	[illegible]	[illegible]	[illegible]
" 13	[illegible]	[illegible]	[illegible]
" 15	[illegible]	[illegible]	[illegible]
" 16	[illegible]	[illegible]	[illegible]
" 17	[illegible]	[illegible]	[illegible]
" 18	[illegible]	[illegible]	[illegible]
" 19	[illegible]	[illegible]	[illegible]
" 20	[illegible]	[illegible]	[illegible]
" 22	[illegible]	[illegible]	[illegible]
" 23	[illegible]	[illegible]	[illegible]
" 24	[illegible]	[illegible]	[illegible]
" 26	[illegible]	[illegible]	[illegible]
" 27	[illegible]	[illegible]	[illegible]
" 29	[illegible]	[illegible]	[illegible]

The following table gives the closing prices each day of the past week on the various deals of No. 1 white:

	Dec.	Jan.	Feb.
Tuesday	76⅝	78	..
Wednesday	76¾	78	..
Thursday	..	..	..
Friday	..	..	..
Saturday	..	..	..
Monday	77½	79½	..

For No. 2 red the closing prices on the various deals each day of the past week were as follows:

	Dec.	Jan.	Feb.
Tuesday	77⅜	79	..
Wednesday	77⅝	79	..
Thursday	..	..	..
Friday	77⅞	79	..
Saturday	77⅝	79½	..
Monday	79	79¾	..

The visible supply is now the largest ever known, the nearest approach to the amount being on December 27, 1885, when it was 58,761,953 bushels. This large amount is a grand argument for the "bears," who point to it as an indisputable evidence that there is more wheat in the country than will be wanted, and that lower prices are likely to obtain. But the fact is farmers have sold earlier than usual, and with improved transportation and elevator facilities, the crop has been moved more rapidly. It is simply "in sight" instead of in the farmers' barns, and when once the amount begins to go down it will become apparent that the reserves behind stocks in sight are much lighter than usual.

The news from Great Britain and the continent of Europe is of interest. From Russia reports show that the light grain crop of 1885 has been succeeded by one equally as light this season. The exports from St. Petersburg have ceased for the season, and reports from Odessa say that prices there are above an export basis. Dealers report a great falling off in receipts.

Mail advices from France say that the report of the commission appointed to consider the question of increasing the import duty on foreign grain was presented to the French Chamber of Deputies on the 10 inst. The report recommends that the duty on wheat and other grain be raised to 5 francs per 100 kilogrammes, and that on flour to 8 francs per 100 kilos—cargoes shipped prior to Oct. 28, direct to a French port, to pay the old duty of 3 fr. per 100 kilos on wheat. The general opinion is that the matter will not be taken up for discussion until the January session. In the meantime large stocks are being laid in by dealers so as to have the benefit of the present duty, which they believe will likely be adopted early in the new year.

The receipts of home and foreign grown wheat in the English markets during the week ending Nov. 13 were 50,000 to 200,000 bu. less than the estimated consumption; and for the eight weeks ending Nov. 6 the receipts are estimated to have been 423,608 bu. less than the consumption.

The following statement gives the amount of wheat "in sight" at the dates named, in the United States, Canada, and on passage for Great Britain and the Continent of Europe:

	Bushels.
Visible supply	58,322,548
On passage for United Kingdom	15,328,000
On passage for Continent of Europe	5,400,000
Total bushels Nov. 13, 1886	79,050,548
Total previous week	77,563,479
Total two weeks ago	76,320,991
Total Nov. 14, 1885	61,763,012

The Liverpool market is quoted higher with good demand. Winter wheat is quoted at 6s. 11d@7s. 1d; spring at 6s. 9d@6s 11d, and California No. 1 at 7s. 0d. to 7s. 3d. per cental.

CORN AND OATS.

CORN.

The receipts of corn in this market the past week were 50,074 bu., against 61,027 bu. the previous week, and 56,327 bu. for the corresponding week in 1885. Shipments for the week were 74,565 bu., against 43,326 bu. the previous week, and 22,751 bu. for the corresponding week in 1885. The visible supply of corn in the country on Nov. 20 amounted to 12,289,408 bu. against 13,096,713 bu. the previous week, and 4,140,202 bu. at the same date last year. The visible supply shows a decrease during the week indicated of 807,305 bu. The exports for Europe the past week were 614,367 bu., against 486,177 bu. the previous week, and for the past eight weeks 4,994,910 bu., against 6,134,669 bu. for the corresponding period in 1885. The stocks now held in this city amount to 25,233 bu. against 21,544 bu. last week and 46,635 bu. at the corresponding date in 1885. There has been more activity in corn the past week, and under the improved demand sellers have been able to secure an advance in values. No. 2 is selling here at 38⅜c, No. 3 at 38¼c, and No. 2 white at 38⅜c per bu. There is not much doing in a speculative way in this market. At Chicago there has also been an advance during the week in both spot and futures. No. 2 spot corn is quoted there at 36⅞c, November delivery at 37c, December at 37c, January at 37⅜c, and May at 42⅜c per bu. Toledo is steady and firm at 38c per bu. for No. 2 spot and 43c for May delivery. New York is reported firm and higher. The Liverpool market is firm with fair demand. Quotations there yesterday were as follows: New mixed spot, 4s. 4½d. per cental; November delivery, 4s. 4½d.; December, 4s. 4½d.; January, 4s. 4½d.

OATS.

The visible supply of this grain on Nov. 20 was 5,650,746 bu., against 5,649,600 bu. the previous week, and 2,966,216 bu. Nov. 21, 1885. The exports for Europe the past week were 31,557 bu. against 59,223 bu. the previous week, and for the last eight weeks were 242,489 bu. against 1,929,476 bu. for the corresponding weeks in 1885. The visible supply shows an increase of 1,146 bu. during the week. Stocks held in store here amount to 21,263 bu., against 21,469 bu. the previous week, and 9,520 bu. at the corresponding date in 1885. The receipts at this point for the week were 23,776 bu., against 40,881 bu. the previous week, and 18,221 bu. for the corresponding week last year. The shipments for the week were 18,985 bu., against 7,944 bu. the previous week, and 2,994 bu. for same week in 1886. Oats are again higher, with white showing the greatest advance. No. 2 white are quoted at 32¼@32⅜c per bu., No. 2 mixed at 28⅜c, and light mixed nominal at 31c. The market is quite firm at the advance. At Chicago the market is also firm, with prices higher than a week ago. Quotations there are 26⅝c for No. 2 mixed spot, 26⅝c for November delivery, 26⅞c for December, 26⅞c for January, and 30⅝c for May. Sample lots are selling there at 30⅝c for No. 2 white, 29@30c for No. 3 white, and 27⅜@29c for No. 2 mixed. At New York the market is quoted active and higher; No. 2 white are quoted there at 36c per bu., No. 3 white at 35⅜c, and No. 3 mixed at 33⅜c. Mixed western are quoted at 33@35c, and white western at 35@41c.

BARLEY.

During the past week barley was received in this market to the amount of 32,583 bu., as compared with 32,514 bu. for the corresponding week last year. The visible supply of this grain on November 20 was 2,666,673 bu., against 2,597,418 bu. the previous week, and 3,039,045 bu. at the corresponding week in 1885. The past week has seen more activity in the barley market than for some months, and under the improved demand values have been able to move upwards. State No. 2 sold up to $1 20 per cental, and Western No. 2 at $1 28. At Chicago the market is quiet in consequence of light receipts, with sales by sample at 58@62c per bu. for No. 2 western, 49@56c for No. 3, and 41c for No. 4. At New York Canada is quoted steady, with No. 1 held at 76c per bu., No. 2 at 71@72c, and No. 1 bright at 80c. Two-rowed State is selling at 63@64c, and six-rowed at 68@73c per bu. At Milwaukee the market is steadier, with No. 2 western quoted at 53c per bu. Five Detroit breweries have been "boycotted" the past week, and this may be expected to cut the demand from the home trade, but what their loss will be some one else's gain, as the average working man seems to prefer hunger to thirst, and will only "boycott" all beer and all saloons they would avoid the heaviest tax paid by them to support the Government, and be better off in health and pocket.

CLOVER SEED is not doing so well as a week ago, and with a lessened demand prices fell off quite materially. Prime is now quoted at $4 40 per bu., and No. 2 at $4 10. For January delivery, prime is quoted at $4 50 per bu. The Toledo market is steady at $4 40 per bu. for prime spot. At Chicago prime is quoted at $4 40 per bu., and fine at $4 50. It is yet early in the season, and too soon to predict with any degree of accuracy what the future of the market will be. It should go higher.

A resident of New Haven is shipping potatoes to Texas, where they are worth four cents per pound.

DAIRY PRODUCTS.

BUTTER.

The market does not show any improvement, and in fact, while quotations are unchanged there is not so good an inquiry as ten days ago. Extra dairy selections sell at 18@19c, good to choice at 15@17c, and the lower grades at 7@12c per lb! Creamery is steady but quiet at 26@28c per lb., with a light demand. At the moment the market here is the weakest of any of the more important ones, either east or west. At Chicago a free movement is noted for all grades, and choice lots are picked up almost as fast as they come in. There are no accumulations and prices rule firm. Fancy selections of creamery are quoted at 26@27c per lb. Fine to choice Iowa, Wisconsin, and similar makes range from 24@25c. Held lots are quotable at 18@20c, while summer-made goods are neglected at 13@16c. Fancy dairies are in special request for consumption at 22@24c, and fresh, sweet stocks are quoted at 16@20c. Low grades and packers' stock sell freely at 8@12c. The New York market is a little higher than a week ago on some grades of fancy stock, but as a rule that market shows little change. The *N. Y. Daily Bulletin* of Saturday says of the market:

"Buyers when they came upon the market did not appear to be difficult to manage and some very fair sales have been accomplished, yet there was an absence of spirit that seemed to be discouraging to some operators and more or less complaint was to be heard. In the matter of cost the changes have been slight and most prominent on the upper line of quality, local buyers appearing to have either accumulated enough for the present or operating more closely to current requirements. Second and third priced goods, however, have sold very well to go out of town and remained quite steady, with some dealers making a fair reduction in their accumulations. Indeed, aside from the slow character of trade, which after all may prove a healthy feature, as a preventive of distorted values, butter is by no means in a bad position, and conservative operators predict that the market will eventually 'work around all right.'"

Quotations in that market yesterday were as follows:

EASTERN STOCK.

Creamery tubs, fancy	28	@
Creamery, tubs, choice	26	@27
Creamery, prime	24	@25
Creamery, good	20	@23
Creamery, fair	18	@20
Creamery, ordinary	15	@17
Creamery, June, fine		@22
Creamery, June, good	20	@21
State dairy half-firkin tubs, fancy	26	@27
State do half-firkin tubs, choice	24	@25
State do half-firkin tubs, good do	21	@23
State do half-firkin tubs, fair. do	18	@19
State do half-firkin tubs, ordinary	15	@17
State dairies, entire, fine		@24
State dairies entire, good	21	@23
State dairies, entire, ordinary	18	@20
State dairy firkins, choice	22	@23
State dairy firkins, good	20	@21
State dairy, Welsh, choice	25	@
State dairy, Welsh, prime	22	@24
State dairy, Welsh, fine	19	@21
State dairy, Welsh, ordinary to good	17	@18

WESTERN STOCK.

Western creamery, Elgin	29	@
Western imitation creamery, choice	20	@22
Western do, good to prime	15	@19
Western dairy, fine	19	@21
Western dairy, good	15	@18
Western dairy, ordinary	12	@14
Western factory, June	12	@15
Western factory, fancy, fresh	20	@21
Western factory, choice	17	@19
Western factory, fair to good	11	@16
Western factory, ordinary	9	@10

The exports of butter from American ports for the week ending November 20 were 262,426 lbs., against 283,971 lbs. the previous week, and 438,742 lbs. two weeks previous. The exports for the corresponding week in 1885 were 239,849 lbs.

CHEESE.

Cheese maintains its position with much firmness, and under reports of a fair demand for shipment and steady markets abroad at the recent advance, certainly the outlook is very favorable for holders. In this market there is no change to note in quotations, which are as follows: Full cream Michigan, 12@12½c; New York, 12½@13c; Ohio, 11¾@12c. The Chicago market is reported firm with a good demand and at slightly higher prices. Quotations there are as follows: Full cream cheddars, 12@12½c; full cream flats (two in a box), 12¼@12½c; Young Americas, 12½@13c; low grades, 3@8c. At New York the tendency is toward an advance in values, and if values are maintained abroad, there will probably be a marking up of prices within a day or two. Of the outlook the *N. Y. Daily Bulletin* of Saturday says:

"It is somewhat difficult to determine whether quotations should be marked up a fraction or not on the fancy goods. As a rule, receivers say they cannot obtain more than 12½c for their offering, and report sales at that rate, but a few have done business at ⅛c more, both with the foreign and domestic trade, one pretty long line to the latter, and buyers with orders for a close, careful selection admit that they cannot get "just what they want" for less than 12⅝c. While, therefore, the latter is not a general or single quotation it looks as though it should be recognized as a possibility on the perfect goods, with white worth certainly as much as colored. In other stock there has been fairish trading at 12@12¼@12⅜c, the latter now and then on lots containing a few September dates, and the bulk of the Central New York cheese sold in the country on Monday so far as received has commanded the latter range. Skims about as before in price and meeting with fair demand."

Quotations in that market yesterday were as follows:

State factory, fancy	12½@
State factory, choice	12¼@12⅜
State factory, prime	12 @12¼
State factory, good	11¾@11⅞
State factory, medium	11½@11⅝
State factory, fair	11¼@11⅜
State factory, night skims, common	8½@ 9
State factory, night skims, average	9½@10
State factory, night skims, selections	10½@11½
State dead skims	7½@ 8½
Ohio flats, fair to good	11 @11¾
Ohio flats, fine	12 @12¼
Pennsylvania Skims	2½@ 3½

A Montreal commission house, under date of 24th inst., says:

"Stock in Montreal is from 75,000 to 80,000 boxes, which includes all goods east of Toronto except about 10,000 boxes in local storage at one or two country points. Toronto West has 10,000 to 12,000 boxes, bought and unbought. Today information from the West reports the balance of unsold goods, which are colored, being taken up at 12⅛@12⅜c, and in a few days the entire stock of Canada will be held for English account. All cheese held here and east of Toronto is for foreign account, and we do not think over 5,000 boxes in Montreal are for sale on the market."

The receipts of cheese in the New York market the past week were 43,172 boxes against 45,143 boxes the previous week and 40,706 boxes the corresponding week in 1885. The exports from all American ports for the week ending Nov. 20 foot up 2,272,218 lbs., against 3,242,563 lbs. the previous week, and 2,438,268 lbs. two weeks ago. The exports for the corresponding week last year were 2,129,657 lbs. Of the exports, 1,399,180 lbs. were from Montreal. The Liverpool market is quoted steady, with quotations on American cheese at 62s. per cwt., the same figures quoted one week ago.

WOOL.

The eastern markets are in much the same shape as a week ago, with perhaps a stronger feeling upon some lines of stock, such as No. 1 and delaine wools, which are scarce. The past week has been rather quiet, owing to Thanksgiving Day breaking up business to some extent, and the record of sales shows a falling off from that cause.

At Boston sales for the week aggregated 1,780,500 lbs. of domestic and 104,000 lbs. of foreign, as compared with 2,152,800 lbs. of domestic and 256,000 lbs. of foreign the previous week, and 3,197,100 lbs. of domestic and 245,000 lbs. of foreign for the corresponding week in 1885.

Quotations in that market are unchanged. Among the sales of washed fleeces we note XX and above Ohio at 38c, XX Ohio at 37c, No. 1 Ohio at 40c, X Ohio at 34@35c, X Michigan at 32½@33c, Michigan delaine at 35@36c, and fine delaine at 36@37c. In combing wools Ohio No. 1 sold at 42c and Wisconsin No. 1 combing at 39c. Michigan No. 1 is scarce and in demand. A large number of the sales are reported on private terms. In foreign wools Australian is quiet and steady at 34@39c for clothing, 36@39c for combing, and 36@42c for cross-bred. The Boston *Commercial Bulletin* says of prospects and prices:

"Ohio and Pennsylvania fleeece are in very light supply and exceedingly strong. More than other grades are washed fine fleeces affected by the market on Australian wool and the improving prospect has lent a better tone to domestic wool. Ohio No. 1 fleeces are slightly advanced.

"Michigan X is offered at 33c and could be sold in large lots at 32c. The few sales effected are usually between these figures. It is much to be doubted if any choice X could be purchased at less than 33c. Michigan No. 1 is very firm at 38c and very scarce.

"Combing and delaine fleeces have not altered materially. The best Ohio No. 1 combing still sells at 42c ranging downward to 40c for more ordinary lots. Ohio delaine is in light supply. For choice lots of fine delaine 38c has been offered and refused during the week, but fair wool finds a purchaser only at a lower figure.

"Texas wool is quiet and steady. Indiana and Kentucky unwashed wool is in very light stock in this market. Combing and clothing are so generally sold together that it is impossible to quote them separately with any exactness, the wool selling on its condition rather than length of staple. Indiana ⅜-blood wool is somewhat softer than Kentucky and commands 31@32c. Kentucky ⅜-blood is quoted at 30@31c and Indiana and Kentucky ¼-blood wools range upwards from 29c.

"Georgia wool is in merely nominal stock in this market. The small lots in New York are held at 32c.

"Territory wool has ceased to decline. For the best ⅜-blood Wyoming 26c has been bid and declined during the week. The best ½-blood is held at 25½c. The scoured basis of these wools is 52@54c and 59@60c respectively. Montana clean is worth to-day 67c for fine, 62c for fine medium and 52@54c for medium. These quotations apply to the very best wool.

"California wool jogs along at unchanged pace. The sales of fall wool are only moderate.

"Oregon wool is sold steadily in the retail way. No. 3 Valley has been bought on a scoured basis by close buyers at 42@43c clean or 24@25c in the grease.

"Pulled wool has been in demand and the stock of extras and old A supers has materially diminished. Good extra pulled is worth 33@34c."

The New York market has also been quiet, but so far as we can see there is no appearance of weakness in the trade. The last issue of the *U. S. Economist* has the following:

"We learn that Philadelphia houses have been heavy buyers of wool in the interior of New York State and Vermont, taking second hand lots at 36c in the country with fine mixed with the coarse. Large sales of territory wool have taken place in all those of the Atlantic seaboard markets at full prices, and at this writing they are held higher.

"There is a sharp outlook now for both combing and delaine wool. Such wool is sure to command high prices. All choice wool is held stiffly and rising quotations seem inevitable. In fact, the market is a Thanksgiving one in every way, and the trade is very cheerful all round. Parties, of course, who are 'short' do not feel easy, because they see our supplies of choice selections dwindling away every week, if not every day, and the indications point to a new chapter in the history of the wool and woolen interests of this country.

"For eighteen years wool with noils, waste, etc., etc., has been coming into the country at undervaluation—if not here into Boston and Philadelphia—but the thing became so glaring finally that a check has been put to it, when it was discovered that the farmers of the country were sending their sheep and lambs in myriads to the butcher, and that other millions were killed by the storms or starved by drought in all the principal wool colonies of the world. California grows to-day twenty million pounds less than she did. Don't ask us why? The question is too simple. Texas grows less by five millions, Ohio by five millions, South America by seventy-five millions, and every State and Territory in this Union (except two Territories) is short thirty-three million pounds of wool. The Australian clip also shows a great shortage and the quality is inferior, as a matter of course, when taken off poorly fed sheep and lambs.

"To the farmer we would now say, send no more sheep to the slaughter, but go to work and raise the classes of wools for our worsted and woolen mills which are in most request. Wool growing will and must pay in this country, and woolen mills must and will flourish in spite of the crude ways in which they are managed by all early projectors. In less than fifty years from now our population will count one hundred millions of souls, and they all must be clothed as well as fed. Fifty years is only a very short period, not much more than a generation only. Look for a moment at the progress we have made in this country in the last fifty, if not twenty-five years, and then tell us if Rome and Carthage or Great Britain ever reached or even dreamed of such a voluminous traffic. It is folly to assert that the wool and woolen interests of this country are not at the commencement of an era of progressive advancement, and all who come in our way to decry this progressive march we shall brush aside as we would spiders who bar the way."

The Visible Supply.

A dispatch from Chicago yesterday says that the number of bushels of grain in store in the United States and Canada Nov. 27, and the increase and decrease compared with the previous week, is as follows: Wheat, 59,572,078 bu.; increase, 20,727 bu. Corn, 11,123,026 bu.; decrease, 1,166,382 bu. Oats, 5,525,282 bu.; decrease, 125,464 bu. Rye, 405,945 bu.; decrease, 3,680 bu. Barley, 2,643,650 bu.; increase, 23,023 bu. All the wheat destroyed by the fire in the elevators at Duluth was deducted from the amount of stock in store.

WE this week publish in the FARMER the advertisements of two agricultural papers —the *Western Rural* of Chicago, and the *Ohio Farmer*, of Cleveland, Ohio. Both are generally accepted as reputable journals and their publishers as honest business men. In the advertisement of his journal one claims it to be the "largest and cheapest agricultural paper published in the world," and the other asserts his is "the largest and cheapest agricultural paper published in America." Either of the proprietors would resent being accused of untruthfulness, and yet the two claims prove one or the other to be publishing a falsehood. In fact we believe each one is "conspicuously inexact" in his statement, and these statements are published to induce people to subscribe for their journals. How the *Rural* would "go for" a person who induced parties to purchase some of his stock by lying about it, or how friend Lawrence would "tear up" the villain who induced his subscribers to send for a new variety of corn by telling them it would produce 150 bushels of ears per acre with ordinary cultivation, when it required extra care and work to get 60? And yet how much worse would those parties be than the publisher who lies about the size and quality of his paper to secure subscribers? Honesty does not consist in claiming to be honest, but in being so, and we would suggest therefore, in the most delicate manner possible, "with charity for all, with malice toward none," that the publisher who lies about his paper, its circulation, size, or quality, is no better than any other liar, or any more entitled to the respect of the public. At the same time we disclaim any idea of accusing our eminently respectable contemporaries of trifling in the remotest degree with the truth. We know they never do it except—well—that is—unless they believe it is positively necessary, and in the way of business.

MR. G. A. Watkins, of this city, who is interested in Jersey cattle, has one which he keeps as a family cow. Last week he determined to test her butter-making qualities. Accordingly one pint of milk was taken from the milking of Monday evening, Nov. 22d, and was set in a glass jar (or test tube) until evening of Tuesday 23d, then taken and churned (the entire pint, milk and cream), and from it two and a half ounces of unsalted butter were made, which would be at the rate of one and a fourth pounds of unsalted butter to a gallon of milk. She was fed as usual, on a ration consisting of ground oats, corn meal and bran, with hay and water, about 12 quarts of the mixture per day. She had been in milk three weeks when the test was made. She is three years old and is called Dora LeBrocq A. J. C. C. No. 29094.

PARTIES shipping dressed poultry to this market should remember that the city ordinances require such poultry to be drawn, have the heads off and crops out, otherwise it is liable to seizure.

$20,000,000.

To the Editor of the Michigan Farmer.

"Old Genesee" says that the manufacturers of woolen goods have $100,000,000 invested and that under our tariff they can make 35 per cent "clear income" on the investment in one year. Now here is a splendid opportunity: The manufacturers will jump at the chance to make 15 per cent, and if "Genesee" will explain to them how they can make the 35 per cent, they will cheerfully give him the remaining twenty per cent. This will make a fortune of twenty millions of dollars for him in a year, provided, of course, that there is no mistake about the 35 per cent. CYRUS LEE.

Annual Meeting of the Michigan Merino Sheep-Breeders' Association.

HANOVER, Mich., Nov. 26th, 1886.

To the Editor of the Michigan Farmer.

The seventh annual meeting of the Michigan Merino Sheep-Breeders' Association will be held in the capitol building at Lansing, commencing at seven o'clock P. M. on Tuesday, December 21st, 1885, and continuing through Wednesday.

Yours very truly.
W. J. G. DEAN, Secretary.

The British Grain Trade.

The *Mark Lane Express* of yesterday, in its review of the British grain trade during the past week, says:

The sparse offers of native wheat are attracting the attention of the trade, and it is believed that the crop has been largely overestimated. It is now calculated at 6,500,000 quarters. In the provincial markets the supplies are rather greater. Values have not risen. The sales of English wheat during the week were 49,963 quarters at 41s 11d, against 68,218 quarters at 30s 9d during the corresponding period last year. In London the trade for wheat off stands is firmer and values are generally 6d higher, with 1s advance on American, Russian, and choice Indian. Prices of flour and corn are maintained. There are large supplies of oats and the market is dull. Two cargoes of wheat arrived, two cargoes were sold, and five were withdrawn. The market was clear of supply Saturday evening. At to-day's market there was a limited trade. Wheat was in good demand. Flour was 3@6d higher. Corn was 3d dearer. Oats were 3d lower. Beans and peas were 3d@1s dearer.

Stock Notes.

MR. R. C. REED, of Oceola, Livingston County, sends us the following:

"I have sold to E. H. Estes & Son, Salt River, Isabella Co., the registered rams P. Stickney & Son 606 and 636, also R. C. Reed 7, and my entire flock of unregistered sheep.

"I have also sold the six months' old Shorthorn bull calf, Oceola Duke, dam Viola (Vol. 18, page 13,954) sire Young Mary Duke 45227, to F. D. Barton, Anderson, Mich. Besides being a fine growthy calf he comes from a family of excellent milkers."

MR. C. E. WAKEMAN, of Pontiac, has purchased the Shorthorn heifer calf 6th Rose of Geneva, bred by A. Renick, of Kentucky, sired by Acklam Sharon 5447, out of 3rd Rose of Geneva by 4th Duke of Geneva 7931. This is a very fine animal and one which was included in the Renick premium show herd this season. Also the cow Vinewood Knightley Duchess, five years old, sired by 8th Duke of Vinewood 32445, out of Knightly Duchess 2d by 3rd Duke of Oneida 9927. This cow was bred by Mayor Barton, of Millersburg, Ky., and is a very fine animal. The addition of these two females to Mr. Wakeman's other purchases gives him a grand foundation for a well bred herd of Shorthorns.

MR. JOHN LESSITER, of Jersey, Oakland Co., reports the following sales from his flock of Shropshires:

To Jerry Bolton, Leslie, one three year old ram.

To M. A. Chandler, Jerome, two registered ewe lambs.

To M. Davis, Flint, one three year old ram.

To Wm. Anderson, Jr., Oakland, ten ewes and one ram lamb.

To Romain Clark, Orion, one yearling ram.

To M. Pierson, Hadley, one ram lamb.

To R. D. Anderson, Oakland, one ram lamb.

To Joseph Young, Pontiac, one ram lamb.

To Homer Brooks, Wixom, 28 ewes and one ram lamb.

To J. J. Murdock, Bay Port, two ewes and one registered ram lamb.

To G. Greer, Bloomfield, one three year old ram.

To M. Butterfield, Oakwood, one ram lamb.

W. J. GARLOCK, of Howell, Livingston Co., reports the following sales of sheep from his flock of Shropshires during the past season:

To Jas. Walker & Son, Jackson, four ewes, one shearling ram Champion 132.

To Robt. R. Smith, Howell, five imp. three-shear ewes.

To E. A. Garlock, Howell, ten shearling ewes.

To J. E. Abrams, Prospect Lake, one ram lamb.

To Lansing Beach, Kensington, one shearling ram.

To Ed. E. Beach, Brighton, one ram lamb.

To T. Stanfield, Brighton, one ram lamb.

To Henry Cornwell, Ann Arbor, one shearling ram.

To Patrick Gallagher, Hamburg, one shearling ram.

To Robt. R. Smith, Homell, two two-shear ewes, four three-shear ewes.

To Jas. M. Turner, Lansing, two imp. ewes.

To J. F. Shulty, Lansing, two imp. ewes.

To S. P. Doty, Eagle, two ram lambs.

To M. Jackson, Hoytville, one shearling ram.

To Chas. Foster, Okemos, one three-shear ewe.

To Harvey Wilson, Mason, three ewe lambs.

To Gilbert I. Sargent, Fowlerville, one one-shear ram.

To Phil. Smith, Williamston, one ram lamb.

To Prof. Sam'l Johnson, State Agricultural College, one one-shear ram.

To D. Fisher, Rising, Ill., one ram lamb.

To M. W. Matrau, Watervleit, three two-shear ewes.

To Jos. Sykes, Muir, one ram lamb.

To Alex. McPherson, Howell, five one-shear rams, four one-shear ewes.

To E. A. Garlock, Howell, 15 3-shear-ewes, and six ewe lambs.

To Mr. Rorabacker, Hamburg, four ewes, and one ram lamb.

To J. M. Emmons, Dowagiac, one ram lamb.

To Phil. Smith, Williamston, one shearling ram.

To Robt. R. Smith, Howell, 10 three-shear-ewes, two shearling ewes, two ewe lambs, and one two-shear ram.

To E. A. Garlock, Howell, two three-shear ewes.

To Mr. Hunniker, Corunna, one shearling ram.

To E. A. Garlock, Howell, one shearling ram.

To J. G. Clark, Champaign, Ill., one shearling ram.

To Howard Clevenger, Champaign, Ill., one three-shear ram.

To D. Fisher, Rising, Ill., one two-shear ram.

To Edward Gleason, Hartland, one shearling ram.

To Arthur Latham, Rugby, Ill., two two-shear rams.

To Geo. Barnhouse, Fowlerville, one ram lamb.

To John Faulk, Howell, one ram lamb.

To Phil. Smith, Williamston, two ram lambs.

To W. W. Wyman, Sebewa, one three-shear ram.

Total 118 head. This is all to date, but the inquiry for well bred Shropshire sheep shows no waning and is daily on the increase; the prospect for those breeding choice animals of the breed could not be more encouraging. W. J. GARLOCK.

NEWS SUMMARY.

Michigan.

Monroe is to have a toboggan slide.

Governor-elect Luce will reside at Lansing during his term of office.

A single dealer at Corunna shipped 175,000 dozens of eggs the past season.

B. F. Batcheler, of Oceola, has gone to Kentucky to secure stock for his herd of Shorthorns.

Bay City is going to buy a farm on which to raise grain and hay for the horses owned by the city.

Major Jenney, of Mt. Clemens, claims to have the finest herd of Jerseys for its number, 40 head, in the State.

The Pontiac Gazette says Mrs. Ann Newton received about $700 in premiums at the late Fat Stock Show in Chicago.

Wells, of Washtenaw County, wife murderer, will spend the remainder of his life in prison in expiation of his crime.

Wm. Price, railroad engineer, was almost instantly killed near Lowell on the 27th, by the collision of two freight trains.

M. W. Higby, of Madison, is about to erect a large saw-mill at Adrian, with a capacity of from 15,000 to 20,000 feet of lumber.

Perry Manning, of Portland township, and well known throughout Ionia County, died of heart disease on Thanksgiving night.

W. W. Colby, of Williamston, raised three hundred bushels of corn and 670 bushels of turnips on four acres of land last season.

Francis Palms, of this city, reputed the wealthiest man in Michigan, died on the 24th, aged 76 years. He made his money in pine lands.

Abel Brockway last year bought 17,000,000 feet of standing pine for $200,000. This year the property was sold for $250,000. Nice little profit.

Two boys of Howell have been arrested for beating their mother, an aged woman. One is doing his 90 days at Ionia, the other appealed his case.

Ira Phillips, of West Branch, accidentally shot his father, who was on a visit to his house. The old gentleman lived but three hours after the accident.

The schooner L. J. Conway, of Muskegon, was wrecked near Whitehall last week, and the crew of five men lost. Thomas Smith, of Muskegon, was captain.

Philo Davis, supervisor of Pontiac township, Oakland County, died of heart disease while on his way to Romeo to spend Thanksgiving with his daughter.

A number of farmers have been experimenting with raising peppermint near Tekonsha, and find the business so remunerative that a still is to be erected in the spring.

From the small town of Quincy have been shipped 19,030 barrels of apples this fall, and 5,000 barrels were used by the local evaporators, making a total of nearly 25,000 barrels.

Mrs. Charles Smith, of Charlotte, was found dead on the floor of her house, when her husband returned from work on the 26th. Her clothing had taken fire, and death resulted at once.

Laderach Bros., lumber and salt manufacturers of West Bay City, failed last week, after 25 years of business life. The failure is a bad one, liabilities being about double the assets.

Coldwater Republican: E. J. Moss has gathered 4,200 pounds of trimmed roots of horseradish from less than half an acre of land. His crop will be none too large to supply his trade.

Dr. Weir, of Oscoda, who is badly wanted there on a charge of criminally abusing an unfortunate inmate of his private hospital, and thereby causing her death, was arrested at London, Ont., last week.

The Normal School at Flint is in possession of the sheriff. A large number of the students have paid board and tuition fees, which they will lose unless the financial difficulty can be adjusted and the school continued.

G. B. Loranger, of Vassar, was watchman at the elevators which were burned at Duluth Saturday night, and was burned to death. Charles Moore, son of a farmer living near Ann Arbor, also lost his life in the same fire.

George Redpath, who lives near Kalamazoo, was threshing with a steam engine when sparks communicating to the straw set it on fire and the grain barn, a year's crops of wheat and oats and 14 tons of hay were destroyed.

Port Huron Times: The drill at F. L. Wells' salt well is now 65 feet in the solid salt rock. It is estimated the rock here is at least 150 feet thick. The drill has passed through two layers of salt, one three feet thick, the other 26 feet.

J. B. Aldrich, arrested at Charlotte for bigamy nearly a year ago, and but lately released from prison, is said to have married again. He is said to be sixty years old, and "homely as a stump fence," but his recent matrimonial venture is the eighth.

Mr. John Wallace, of Vernon township, Shiawassee County, whose experience with alleged farm buyers was given in the FARMER last week, tells the Corunna Independent, which published the item, that the whole story is "a malicious lie."

Twelve men broke into the house of Chas. Pringle, of Corunna, took a boarder named Coleman from his room, gave him a coat of tar and feathers and escorted him to the city limits where they gave him instructions to skip, which were obeyed with alacrity. The reason of the visit was Coleman's alleged intimacy with the lady of the house.

A scaffold in the new cyclorama building on Larned Street, this city, gave way under the weight of the men working upon it, last week, and five carpenters were thrown with it. One saved himself by a quick jump to another part of the scaffold, but the four others fell 50 feet to the ground below. M. Geigler was killed instantly, J. Austin died on the way to the hospital, and the other two were severely injured.

New York and Boston capitalists, with a half dozen of the heavy weights of Detroit financial circles, have formed a company to build a railroad across the Upper Peninsula, to be known as the Duluth, South Shore & Atlantic railroad, having a direct route from Duluth to Sault Ste Marie. This will complete a chain of roads extending from ocean to ocean, and give Michigan a share of the traffic west of Duluth and contributory to the Northern Pacific railroad.

In the case of Harvey Rowley, of Owosso, whose dead body was recently found in the buggy in which he had ridden from Corunna to Owosso, with a bullet hole in the temple and a revolver in the buggy, the coroner's jury returned a verdict of suicide. There are many citizens, however, who reject the theory of suicide, and believe the young man was foully murdered. He had been to Corunna to visit his affianced, was in good spirits, and had no reason to take his own life, while there are many other circumstances which further strengthen the murder theory.

A correspondent of the Ann Arbor Courier claims the chapel in school-buildings, being a room used but once or twice during the day, should be located in the third story of school buildings and the lower rooms devoted to recitation purposes. The truth is there are few towns in Michigan where land is so valuable as to necessitate a school-building more than two stories in height; and when people understand that an imposing building, "an ornament to the town" as they think it, means ill health and disease to their children, they will build so as to avoid so much running up and down stairs.

General.

Four persons have been frozen to death in Dakota already this winter.

The silver-plating works at Bucyrus, Ohio, were burned last week; loss, $35,000.

There were 216 business failures in the United States and Canada last week, against 242 the previous week

Kentucky produced seventeen million gallons of whiskey last year. Seems as if that State would be a good one for the W. C. T. U. to work in.

Coal was found near Omaha, Nebraska, last week, a vein seven feet thick at a depth of 500 feet. A stock company to work it will at once be formed.

A syndicate has been formed to buy up all the coal lands in Ohio, by the Columbus & Hocking Valley and the Ohio & Western coal and iron companies.

Two large elevators were burned at Duluth on Saturday night, and four lives were lost. The loss is set at $85,000, which includes nine small frame buildings.

The chief of the engineers of the army reports that appropriations amounting to $1,043,000 are needed for the care and preservation of existing coast defences.

There has been a contraction of over $56,000,000 in the national bank circulation during the past year, due to the redemption of bonds held to secure this circulation.

Wm. Reed, treasurer of the South Boston horse railway company, is a defaulter in a sum variously estimated from $250,000 to $300,000. Wine and women caused his downfall.

Ralph Newman, a business man of Kansas City, recently swallowed a raw bean, which produced an ulceration of the pit of the stomach from which he died last week.

The life saving service is reported to have saved $5,073,078 worth of property the past year. There are 211 stations; and besides the property saved, 807 lives were preserved.

Hon. Erastus Brooks, once a leading spirit in New York politics, died Thanksgiving day. He was the founder of the New York Express, a few years ago consolidated with the Mail.

The deficiency in the postal service, to be supplied out of the general treasury for the fiscal year, is $4,729,553, which is $2,175,612 less than for the year ending June 30th, 1885.

Jesse Billings, sent to the Indiana penitentiary for forgery, has just fallen heir to a fortune of $100,000 and has been pardoned. He belonged to a prominent family of Louisville.

Out of over two and three-quarters millions of passengers carried by the Michigan Central last year, only four persons were killed, and but seven injured. Who's afraid to travel?

The Mexican Congress will consider a bill to lower duties on farming implements and pay premiums on certain articles of export, for the purpose of imparting a new impetus to farming.

Alderman McQuade will have his second trial this week, and extraordinary precautions will be used in selecting the jury. Further evidence will be introduced by the prosecution.

The statue of Liberty on Bedloe's Island narrowly escaped destruction by fire last week, from the electric lenses used in lighting it. The fire had communicated to the wooden staircase inside before it was discovered.

An explosion of gas occurred in the Conyngham colliery near Wilkesbarre, Pa., by which forty miners were more or less burned, eight or nine fatally. The force of the explosion was so great as to destroy all inside workings.

The Cunard line of steamers has carried the mails between England and America for years, at the rate of $1 per pound for letters. Under the postal union treaty the North German Lloyds carry letters at 40 cents per pound.

The Chicago anarchists have been granted a reprieve, until the Supreme Court examines the case. The appeal to the higher court is based upon the rulings of the lower court as

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regards the admission of evidence and in the charge.

There are about eight million umbrellas made in the United States annually, and that only provides one person in six with one of these useful articles. Philadelphia is the seat of the umbrella-making industry in this country.

It is claimed that members of the Merchants' Exchange at Buffalo are implicated in a conspiracy to steal grain from the elevators in that city. It is said over 10,000 bushels have been stolen. The grand jury has found indictments against those accused.

George Hazlett and Sarah Allen, of Buffalo, went through the Niagara rapids in a torpedo shaped barrel on Sunday last. They made the trip successfully, and are entitled to write their names on the glorious record of the fools who have periled their lives for nothing but "the fun of it."

The Canadian Pacific Company has surveying parties at work locating a line from Algoma Mills to Sault Ste Marie. This is an extension of a branch, in order to effect a connection with the American system of the west, and more particularly to tap the trade of St. Paul and Minneapolis.

The shipping league, in session at Pensacola, Fla., last week, decided the present business stagnation is due to overproduction and insufficient communication with foreign countries, and advises the securing of new markets, notably those of Central and South America and the West Indies.

An oil painting of a five dollar bill, valued at $1,000, and painted by Harnett, was last week seized at New York by an agent of the treasury department, and taken to Washington, where the secretary of the treasury will decide whether the artist and owner are liable to prosecution as maker and owner of a counterfeit note.

The residence of S. H. Baker, proprietor of the Pennsylvania car works at Latrobe, Pa., was first wrecked and then burned by a natural gas explosion in the heating furnace. The family miraculously escaped injury. The loss is $8,000. The employes of the gas company turned on the gas in the furnace without notifying Mr. Baker.

Orrin S. Skinner, formerly a well known Chicago lawyer, was last week tried at London for obtaining money under false pretenses, and sentenced to five years penal servitude. Skinner was, in 1878, president of the Allied Mines Company, a scheme by which he effectually plucked every person who could be induced by the most flattering representations, to have any connection with it. His father-in-law, Senator Browning, lost his entire fortune, $250,000, and James G. Blaine also suffered, with many other notables.

Americans in Mexico seem to find a foe more powerful than Kentucky "old rye" against the sobriety characteristic of them at home, in the peculiar beverages of the country. Mr. Sedgewick, sent on a diplomatic mission, got howling drunk on *pulque*, the Mexican national tipple, greatly to the disgust of his constituency. Now Minister Manning, also in Mexico on diplomatic business, has fallen a victim to the insidious *pulque* and was invisible for four days after his indulgence. As mortals were forbidden to eat or drink in Elfinland, under penalty of never being able to return to a real world, so future embassadors should be required to take an oath to abstain from dalliance with *pulque* when it looketh red in the glass.

The Standard Oil Company recently bought the two great independent oil refineries in Pittsburg, Pa.—the American and Empire—for $1,100,000. Last week they closed both refineries. The stills were run out and cleansed, the fires extinguished, the boilers removed, and the plants will be pulled down. In addition to this, the National Paraffine Company is pulling up its extensive plant in the city. They cannot longer get the oil to make paraffine, and are compelled to quit. The works were started by Cameron & Caldwell hardly a year ago. They procured their refuse material from the American and Empire oil refineries and put up the largest works in the United States, with the most improved machinery. In October the Standard Oil Company purchased the control of the American and Empire refineries. It is the policy of the Standard Company to keep all the branches of the oil business in their own hands and not allow any other plants to exist which they can crush out; and the moment they took possession of the two refineries they stopped the supply of the crude material from which the National Paraffine Company has been manufacturing its paraffine. This stopped the business of the works.

Foreign.

The residents of Dublin are greatly agitated over the report that the government intends taking vigorous action against the officers of the National League.

Manangaro Bros., bankers of Catania, Sicily, have failed, being found to be defaulters in large sums. Their father, overcome with shame at the disgrace, committed suicide.

The heirs of the late Baron de Rothschild, who recently died at Frankfort, will unite his splendid art collection with the collection at Guenthersburg, and form a public museum.

The Empress Eugenie has spent a considerable portion of her fortune in erecting a handsome mausoleum at Farnborough for her husband, Napoleon III., and her son, the prince imperial.

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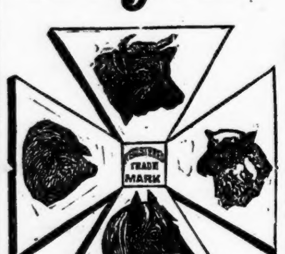

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I have a choice lot of last April pigs which I will sell very low for the next thirty days. Either sex, in pairs or herds not akin. Would exchange some f r pine, or a part hemlock lumber suitable for building a barn or fencing; would also exchange for a good registered Shorthorn heifer or cow. My pigs were sired by Magnate 5689, winner of five first prizes in classes and two sweepstakes; Royal Sambo 7839, winner of four first prizes, and Cora's Prince 5007, out of Cora Shellenberger 2880 and sired by Look-no-Further 4005. The above boars are from the most noted and prize-winning strains. I also have Bronze Turkeys, $3 for gobblers and $2 for hens. Write, or come and see. Special rates by express. 23-4t

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Woodlawn Stock Farm, situated six and one-half miles north of St. Louis, Gratiot County, Michigan, will be sold at a very reasonable price. The farm consists of 320 acres, 140 of which are well cleared, balance timber affording good pasturage. The farm is the north half of section 24 in the township of Coe, Isabella County, one of the best agricultural townships in the State, and in the midst of an old, well-settled district, and near two railroads. A large brick house, barn 36x46, granary 26x36, and over three hundred and twenty feet of good substantial stock sheds; buildings cost over $6,000. Two artesian flowing wells furnishing abundance of pure water. No waste land; soil dark clay loam, good for grass, corn, oats, barley, etc. For particulars address *MICHIGAN FARMER,*
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Pigs of both sexes in pairs not akin can be furnished. Sows bred before shipping to prize-winning boars, and at prices to suit the times. Correspondence promptly answered. Inspection invited. ja1-87

Atwood Merinos to Exchange.

We have about twenty head of thoroughqred Atwood Merino ewes from the Hammond stock of Vermont which we would like to exchange for good grade sheep or sell for a very low figure. Our object for making the change is that we cannot give personal attention to the flock. We invite correspondence immediately to
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BERKSHIRES FOR SALE.

Three yearling boars and six young boars and sows direct from imported stock and eligible to registry for sale cheap. Farm 3½ miles west on St. Joseph street. HENRY COWLES,
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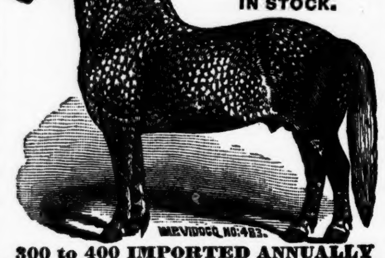

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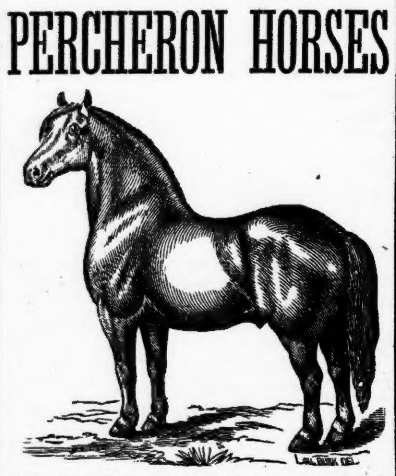

New importations arrived the first of August, and some fine young mares from one to four years old for sale. Stock of both sexes and all ages for sale. Animals all registered in French Percheron Stud Book. All stallions sold guaranteed as breeders. Prices very reasonable.
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A. CHANDLER, breeder of Shorthorn cattle Shropshire sheep and Essex swine. Stock a.e. Correspondence solicited. Jerome.

A. D. DeGARMO, Highland, Oakland Co., breeder of Shorthorn Cattle. Stock farm half a mile north of station. Young stock for sale at reasonable prices. my15-6m*

A. J. COOK, Owosso, breeder of Shorthorn Cattle, Poland China swine and Shropshire sheep. Stock for sale. Write for prices and breeding. o20'85tf

A. P. COOK, Brooklyn, Jackson Co., breeder of Shorthorn Cattle. Good families represented. Bull Major Cragge at head of herd. Choice young bulls for sale. A221y

ARTHUR ANDERSON, Monteith, Allegan Co., breeder of Shorthorn cattle, established 15 years, with Romeo 27750 by 23d Duke of Airdrie and Minnie's Duke by Barrington Duke 3d 37624 at head. Correspondence solicited.

BENJ. F. BATCHELER, Oceola Center, Livingston Co., Mich., breeder of Shorthorn cattle. Herd consists of Young Marys and Phyllises. Young bulls and heifers for sale. Also Merino sheep. Terms reasonable. my8-1y

CHARLES F. MOORE, breeder of pure bred Shorthorn cattle, St. Clair, Mich. Stock for Sale. Correspondence promptly attended to.

CHARLES FISHBECK, Lakeside Stock Farm, Howell, Livingston Co. Breeder of Shorthorns. Herd headed by Bates bull Baronet, Belle Bates 47411, Belle Duchess, Cambria's Victoria, Stapleton Lass, Selinas and Bright Eyes families. Young stock for sale. June3-1y

C. HIBBARD & SON, Bennington, Shiawassee Co., breeders of Shorthorn cattle, Berkshire swine and Merino sheep. All stock recorded. Stock for sale.

C. R. BACKUS, Springdale Stock Farm, Williamston, Ingham Co., breeder of thoroughbred Shorthorns, Vermont and Michigan bred Merino Sheep and Percheron horses. Stock for sale. Correspondence solicited. je17-1y

DAVID P. WILCOX, Forest Hill Stock Farm Breeder of thoroughbred Shorthorns. Stock for sale. Correspondence solicited. Improved farm of 300 acres, with good buildings for sale. Postoffice address Riley, Clinton Co. n27-1y*

D. M. UHL, Brookside Herd, Ypsilanti. Choice Shorthorns of the best milking and beef making qualities for sale. Correspondence solicited. jny20-1y

E. P. KELSEY, Clay Ridge, Ionia, Ionia Co., breeder of thoroughbred Shorthorns. Principal families Young Mary, Phyllis, Gwynne and Pansy. Also recorded Berkshires and Poland Chinas. Correspondence solicited. d181y

E. S. BURNETT & SON, breeders of Shorthorn cattle. All stock registered. Residence, four and a half miles east of Bancroft, Shiawassee Co. Stock for sale.

F. A. BRADEN, Victoria Stock Farm, Bancroft, Shiawassee Co., breeder of pure bred Shorthorns of the Victoria and Stapleton Lass families with Lord Raspberry 2d 48633 at head of herd. Stock for sale je10-1y

FRANK E. IVES, Hickory Ridge Stock Farm, Unadilla, Livingston Co., breeder of thoroughbred Shorthorns of good families. Stock for sale. Correspondence invited. jy1-1y

GEORGE W. STUART, Grand Blanc, Genesee Co., breeder of thoroughbred Shorthorn Cattle, Registered Merino Sheep, and Jersey Red Swine. Correspondence solicited. ja17-1y*

G. W. ARMS, Portland, breeder of Shorthorn cattle of the Young Mary and other popular strains of blood. Young bulls for sale. s29-1y†

HENRY BROOKS, Brooks Farm, Wixon, breeder of Shorthorn cattle. The following families represented: Pomona, Rose of Sharon and Phyllis. Correspondence promptly answered. o19-1y

HENRY LESSITER, Oakdale Stock Farm, breeder of thoroughbred Shorthorns. Stock for sale. Correspondence promptly answered. P. O. address, Grattan, Kent Co., Mich. ja15-1y

H. H. HINDS, Stanton, Montcalm Co., breeder of Shorthorn Cattle and American Merino Sheep. je27-1y*

I. L. MILLS, Bancroft, Shiawassee County, breeder of Shorthorn cattle. Families represented: Pomona, Phyllis and Young Mary. Correspondence will receive prompt attention. je29'6-26t*stp

J. A. DEVINE, Holly, breeder of Shorthorn Cattle of well-known strains of blood. Correspondence invited. o13-1y†

JAMES D. BOTSFORD, Osceola, Centre, Livingston Co. Breeder of thoroughbred Shorthorns, registered and grade Merino Sheep. Stock for Sale. June3-1y

JAMES MOORE, Milford, Oakland Co., Mich., breeder of Shorthorn Cattle of leading tribes, herd headed by Gloster Wild Eyes 56239. Also Hambletonian and Percheron horses, Highland Scotch sheep and Jersey Red swine.

J. E. FISK & SON, Johnstown, Barry County, breeders of Shorthorn cattle, Registered American Merino sheep, and Poland-China swine, Plymouth Rock and Wyandotte fowls. Stock for sale. Correspondence invited. P. O. Bedford, Calhoun Co., Mich.

JOHN JOY, Atlas, Genesee Co., breeder of thoroughbred Shorthorns of good families. Young stock for sale. jy15-1

JOHN McKAY, Romeo, Macomb Co., breeder of Shorthorn cattle. Young bulls and heifers for sale. Correspondence solicited.

JOSEPH SYKES, North Plains Stock Farm, breeder of thoroughbred Shorthorns. Fashionable families and color (red); stock for sale; correspondence solicited. Muir, Ionia Co. d181y

L. L. BROOKS, Novi, Oakland Co., breeder of thoroughbred Shorthorn cattle and Jersey Red swine; stock for sale. Write for prices. my29

L. N. OLMSTED, Burr Oak Farm, Muir, Ionia Co., breeder of Shorthorns. Stock for sale. Correspondence solicited. ja1-1y*

M. A. GROW, Highland, Oakland Co., breeder of Shorthorn cattle, registered Merino sheep and Poland China swine. Write for prices.

M. DAVIDSON, Tecumseh, Lenawee County, breeder of Shorthorn Cattle. A few choice young females for sale. Also some young bulls. Correspondence will receive prompt attention.

N. B. HAYES, Eldorado Stock Farm, breeder of Shorthorns of the Young Mary, Phyllis, etc., families. Young animals for sale. Also breeder of Norman Percheron stock with imp. Eldorado at the head of the stud. Correspondence solicited. P. O. address Muir Ionia Co. d11y

NORTON FITCH, Sparta, Kent Co., breeder of thoroughbred Shorthorns. Stock from good families for sale. Write for breeding and prices. d9-1y

O. SNOW & SON, Oaklawn Park Stock Farm, Kalamazoo, breeders of thoroughbred Shorthorns. Families represented are Youn Marys, Phyllis, Golden Pippin and White Rose. Correspondence promptly answered.

S. CHAFFEE, Byron, Shiawassee Co., breeder of Shorthorn cattle, Merino Sheep and Poland China swine All stock recorded. Stock for sale

S. H. ELLINWOOD, Rose Corners, P. O. address Fentonville, Genesee Co., breeder of Shorthorns. Stock of both sexes for sale. Correspondence will receive prompt attention. n26 26

THE COLLEGE FARM, Agricultural College, Mich., breeds Shorthorn cattle, Berkshire and Poland-China swine, Merino and South down sheep. A choice lot of animals always on sale at very reasonable prices. Address Sam'l Johnson, Sup't of the Farm. s28-1y

W. E. BOYDEN, proprietor Spring Brook Stock Farm, Delhi Mills, Washtenaw Co., breeder of Shorthorn Cattle and Merino Sheep. Young stock for sale. Correspondence solicited.

W. C. WIXOM, Wixom, Oakland Co., Breeder of Shorthorn Cattle, of the Kirklevington, Rose of Sharon, Hilpa, Cruikshank, Aylesby Lady, Young Mary, Phyllis, Lady Helen, Rosemary, Duchess of Sutherland, and other families. Herd headed by the Bates bull Kirklevington Lad 2nd 46393, and Hero 4th 43940.

WM. FISHBECK & SON, Woodland Stock Farm, Howell, breeders of Shorthorn cattle of Victoria, Rosemary and Darlington tribes. Correspondence solicited. jan1:87

WM. BALL, Hamburg, Livingston Co., breeder of Shorthorns. Principal families. Rose of Sharon, Young Mary; Young Phyllis and Cruikshank. Also breeder of thoroughbred American Merinos of the best blood as well as the most thoroughly practical.

WM. WHITFIELD & SONS, Lakeside Stock Farm, Waterford, Oakland Co., breeders of thoroughbred recorded Shorthorn cattle and Hampshire sheep. Stock for sale. s1-1y

Holstein-Friesians.

A. UNDERWOOD, Addison, breeder and dealer in Holstein-Friesian cattle. Stock for sale. Correspondence solicited.

CHAS. F. GILLMAN, 'Fenfeid Stock Farm" Pewamo. Breeder and dealer in thoroughbred Holstein Friesian Cattle and Merino Sheep. a221y

C. V. SEELEY, North Farmington, Oakland Co., breeder of Holstein-Friesians. Stock for sale of the famous Ykema family. Ykema 322 (D. F. Herd Book) at head of the herd. Correspondence will receive prompt attention. au10tf

E. R. PHILLIPS, Bay City, breeder and importer of Holstein-Friesian Cattle. Correspondence solicited. Intending purchasers invited to call and inspect stock.

JOHN ABBOTT, Lapeer, Lapeer Co., breeder of pure-bred Holstein-Friesian Cattle. Tecumseh 366 at head. Choice young stock for sale. Prices moderate. Office over First National Bank.

J. M. STERLING, Monroe, breeder of pure Holstein-Friesian cattle. Stock for sale. Correspondence and personal inspection solicited.

NOCKCHICKAMA HERD of Holstein-Friesian cattle. Cows and heifers, and calves of both sexes are now offered for sale at reasonable prices from this splendid herd. Address F. W. DUNHAM, West Bay City, Mich. je30-4

STONE & BIGGS, Hastings, breeders of thoroughbred Holstein-Friesian cattle. Josh 912 by Ebbo at head. Stock for sale. Write for prices and catalogue. d9-1y

W. B. CLARK, Hillsdale, breeder of thoroughbred Holstein-Friesians from imported stock. Stock for sale. o13-6m

W. K. SEXTON, Howell, importer and breeder of thoroughbred Holstein-Friesian Cattle. Stock farm, three miles south. o18-1y

Jerseys.

BATES & MARTIN, Grand River Herd of Jerseys. Old Noble and Albert 44 families Choice young stock for sale. Address, No. 10 Canal St., Grand Rapids. Farm five miles east of city

SMITH BROS. Eagle, Meadow Brook herd of Jerseys. Stock of the highest quality and of the best strains. Houdan chickens. s30-1y

W. J. G. DEAN, Hanover, high-class Jerseys of the Rioter-Alphea and Grand Duke Alexis strains. Pedro Star 11836, son of Pedro 3187, at the head of the herd. Registered Merino Sheep. s8 1y

Herefords.

R. G. HART, Lapeer, breeder of Percheron, Cleveland Bay and Trotting bred Roadster horses; Hereford and Galloway cattle; Merino sheep and Cheshire hogs. Farm adjoining city limits; residence and breeding and sale stable in the city. Stock for sale; visitors welcome. ja5

RIVERDALE STOCK FARM, Metamora, Lapeer Co., Hereford Cattle, Merino Sheep, and Berkshire Swine. All stock registered. Correspondence solicited. Address Geo. Stone, M'gr.

THOMAS FOSTER, Elm Grove Stock Farm Flint, Genesee Co., breeder of Hereford cattle (Lord Berwick 2d at head), Cotswold and Shropshire Sheep, Berkshire swine, Road and Trotting horses, with stallions Flint and Mambrino Gift, Jr., in the stud, with eleven mares of Mambrino and Hambletonian breeding. Stock for sale. m27-1y

Galloways.

R. B. CARUSS, Essex, Clinton Co., St. Johns P. O. Breeder of Galloway cattle, American Merino sheep and Essex hogs. Correspondence solicited.

Devons.

H. W. CALKINS, Allegan, Allegan Co., breeder of pure and high bred Devon cattle. A prize winning herd. Stock for sale Correspondence solicited.

SHEEP—Merinos.

A. A. WOOD, Saline, breeder of thoroughbred Merino sheep. A large stock always on hand. Also Poland-China hogs; herd started from those of B. G. Buel, of Little Prairie Ronde, and G. W. Harrington, of Paw Paw. ja17-tf

C. E. LOCKWOOD, Washington, Macomb County, breeder of Registered Merino Sheep of Atwood Stock, descended directly from the Hammond flock. Stock for sale. Correspondence solicited.

CHAS. E. SOUTHWELL, Marshall, Mich., breeder of Merino Sheep. Stock registered in Vermont and Michigan Registers. Size, form and density of fleece specialities. May-13-1y

E. BURLINGAME & SON, Byron, Shiawassee Co., breeders of registered Merino sheep of Rich blood; also Shorthorn cattle. Stock for sale. Correspondence invited.

E. B. WELCH, Paw Paw, breeder of thoroughbred Merino sheep. Atwood rams, Rattler and Little Giant, at head of flock. Stock for sale. my26-1y

F. M. DEAN, Maple Avenue Stock Farm, Pewamo, Ionia Co., breeder and dealer in Improved American Merinos. All stock registered and descended from Vermont flocks. Also registered Poland China Swine. Stock for sale. Correspondence solicited.

G. L. HOYT, Saline, Washtenaw Co., breeder of Vermont and Michigan registered thoroughbred Merino sheep. Stock for sale.

JAMES McGREGOR & SON, Metamora, Lapeer Co., breeders of thoroughbred registered Merino Sheep. Stock for sale. my18-y

J. C. THOMPSON, Romeo, Macomb County, breeder of Thoroughbred Registered Merino Sheep; also Poland-China Hogs. Stock for sale. Correspondence solicited. may8-1y*

J. EVARTS SMITH, Ypsilanti, breeder of thoroughbred Merino Sheep, registered in Vermont Register. Rams and ewes for sale of my own breeding, together with recent selections from some of the best flocks in Vt. Examine before purchasing elsewhere ja31-3m

J. E. ROGERS, Saline, Washtenaw Co., breeder of thoroughbred Vermont registered Merino sheep. Stock for sale. mr11-1y

J. H. SNOW, Birmingham, Oakland Co., breeder of registered Merino sheep. Stock bred from the flocks of J. Evarts Smith and J. C. Thompson. Stock for sale. j1-6m.

J. S. WOOD, Saline, Washtenaw Co., breeder of Vermont and Michigan registered thoroughbred Merino Sheep. Stock for sale.

R. HATHAWAY, Addison, Lenawee Co., Mich. Breeder of thoroughbred American Merino sheep, registered in Vermont and Michigan Registers. Rams and Ewes for sale of my own breeding, together with selections from some of the best flocks in Vermont. Correspondence solicited.

S. C. LOMBARD, Addison, Lenawee Co., breeder of Vermont and Michigan registered thoroughbred Merino sheep. Stock for sale. Correspondence invited. s16-1y

S. O. HADLEY, Unadilla, Livingston Co., breeder of thoroughbred and registered Merino sheep. Stock for sale, correspondence promptly answered. oc14-1y

W. J. GAGE, South Lyon, Mich., breeder of pure Jersey Red swine; also registered Merino sheep of Atwood blood. Stock for sale. o20-6m†

WM. C. SMITH, Brookdale farm, breeder of thoroughbred registered Merino sheep. The pioneer flock this part of this State. Stock for sale P. O. Carson City, Montcalm County, Mich. d25-1y

W. H. BERTRAM, Addison, Lenawee Co., breeder of Vermont and Michigan Registered Merino Sheep. Stock for sale. s9-1y

WM. H. BLOW, Flint Valley Stock Farm, Thornville, Lapeer County, breeder of registered Merino Sheep, Berkshire and Poland China Swine and Plymouth Rock chicks. my18-1y

Shropshire Downs.

EMERY A. GARLOCK, Howell, breeder and dealer in imported and Michigan bred Shropshire sheep. Foundation, 26 recorded ewes out of Wesley J. Garlock's flock. Write for particulars. o19-1y

GARLOCK'S imported and Michigan-bred Shropshire sheep are the popular mutton and wool breed. Oldest established in Michigan. Unexcelled by any. Choicest stock at moderate rates. Wesley J. Garlock, Howell, Mich.

J. F. RUNDEL, Birmingham, Oakland Co., importer, breeder and dealer in thoroughbred Shropshire and Hampshire sheep. Correspondence promptly answered. au26-1y

J. LESSITER, Jersey, Oakland Co., breeder of Shropshire Down Sheep, registered and unregistered; also Shorthorn Cattle. Stock for sale at reasonable prices and terms.

LEWIS WILLEY, Pewamo, Ionia County, breeder of Shropshire Downs from imported stock. The mutton sheep of the world. my1-84

ROBERT R. SMITH, Howell, breeder of and dealer in registered Shropshire sheep. Stock always for sale. Terms to suit customers.

T. A. BIXBY, Lake View Stock Farm, South Haven, breeder of Shropshire Stock from imported stock. All registered. Largest flock in Western Michigan. Inspection invited. au3-4m

HOGS.—Berkshires & Suffolks.

A. W. COOLEY, Coldwater, Branch Co., breeder of pure Berkshire hogs of the largest size and very best strains. Pigs and young breeding stock for sale at reasonable prices. All of my breeders are recorded in the American Berkshire Record. Write for prices. o13-3m

EZRA BROWN, Englishville, Kent County, breeder of Berkshire swine of the best known recorded stock. Stock for sale. s30-26

W. G. CAVAN, Brampton, Ont., importer, breeder and shipper of pure-bred Berkshires. Stock for sale. Letters promptly answered. o12-1y

Poland-Chinas.

A. O. BOWEN, Wixom, breeder of pure-bred Poland-China swine. All Breeders recorded in Ohio P. C. Record. Choice stock for sale.

C. A. LIMBECK, Dowagiac, breeder of pure-bred Poland-Chinas. All stock in Ohio P. C. Record. Breeding stock not akin for sale at reasonable prices. Correspondence solicited. n23-4m

C. HAYES, Ithaca, Gratiot Co., breeder of pure bred Poland Chinas. Stock recorded in Ohio Poland China Record. Young stock for sale at prices to suit the times. oc13-1y†

C. W. JONES, Richland, breeder of pure-bred Poland-Chinas. My breeding stock all recorded in both the Ohio and American Poland-China Records. aug4-

G. F. HARRINGTON, Paw Paw, breeder of pure bred Poland Chinas. All stock in Ohio P. C. Record. Breeding stock not akin for sale. Alse breeding registered Merino sheep. Correspondence invited.

H. L. LINTZ, Oak Ridge Stock Farm, Rochester, Oakland Co., breeder of pure Poland-China swine. All stock bred from the most noted families, and all breeding stock recorded in Ohio P. C. Record. Stock for sale. f2-1y

H. W. RILEY & CO., Greenville, Montcalm Co., breeders and shippers of Poland-China swine; all recorded in Ohio Poland-China record Correspondence solicited. s28-1y

Chester Whites.

C. A. SEARING, Lyons, Ionia Co., breeder and shipper of Chester White swine, Oxford Down sheep and Shorthorn cattle. All stock recorded. Correspondence solicited and personal inspection invited. Reduced rates by express

W. W. TUBBS, Delhi Mills, Washtenaw Co., breeder of pure Suffolk and Chester White Swine. Choice stock for sale.

Cheshires.

L. W. FITCH, Howell, Livingston Co., breeder of thoroughbred Cheshires. Stock for sale Correspondence promptly answered. e7-1y

Duroc-Jerseys.

JOHN W. FOSTER, Flint, Genesee Co., breeder and shipper of pure-bred Duroc Jersey Red swine, registered Atwood Merino sheep and Black-breasted Red game fowls. jy23-1y

W. M. HILBERT, North Lansing, breeder of Small Yorkshire pigs of best known strains of blood. All breeding stock recorded. o5-3m

HORSES.—Draft and Trotting

☞ Persons visiting either of the three following breeding establishments will be carried to the others if desired.

E. WOODMAN, Paw Paw, breeder of Percheron horses. Imp. Duke of Perche, Monarch and Gray Duke in the stud. Stock for sale at all times at moderate prices. Am breeding Shetland ponies and Jersey Red Swine. Come and see or write for what you want.

A. W. HAYDON, Decatur, Van Buren Co., breeder of full-blood Percheron horses. At the head of stud is imported Chere, winner of four first prizes and gold medals in France, including a first prize and gold medal at the Universal Exposition of Paris in 1878. Also thoroughbred Merino sheep in Vermont and Michigan registers. Stock for sale.

HILLSIDE STOCK FARM, Watervliet, Berrien Co., Parsons & Baldwin, breeders of Percheron and Hambletonian Horses and Registered Merino sheep. Imported Trojan 1205 (832) and True Boy 4398 at head of stud. Stallions, Brood Mares and Young stock for sale. Correspondence solicited.

H. C. BENTON, "Maple Hill Side," Northville, Wayne County, breeder of draft and trotting horses, with Walter H., a Percheron, Captain, a coach, and the trotters Neptune and Joaquin Miller in service. my5

POULTRY.

F. C. ARMS, Portland, breeder of high class Light Brahmas; a fine lot of chicks for sale. Be sure and write for prices. n2-8t

J. H. HAYNES, Decatur, breeder of high class and fancy poultry. Plymouth Rocks, Wyandottes, Rose and Single-Combed Brown Leghorns. Send for illustrated circular. mr24-1y

LOUIS MEYER, Brighton, breeder of high class Light Brahmas, Langshans, Plymouth Rocks, Brown Leghorns, Rouen and Pekin ducks, Bronze turkeys and Toulouse geese. Chicks and eggs for sale in season. d9-6m

MRS. W. J. LAWRENCE, Battle Creek, breeder of pure-bred poultry. L. and D. Brahmas, Langshans. P. Rocks, Wyandottes, Japanese, Royal Pekin and Golden Seabright bantams. Toulouse and Embden geese. Rouen and Pekin ducks. Bronze Turkeys. Pea fowls. Pearl Guineas, and dealer in cage birds. Also registered Merino sheep and Poland-China swine Stock for sale and eggs in season. n9-1y

W. W. McDOWELL, Howell, breeder of high class poultry. Light Brahmas, Plymouth Rocks, Langshans, Partridge Cochins, B. Leghorns, Aylesbury and Rouen Ducks, Bronze Turkeys and Toulouse Geese, stock and eggs for sale in season, write for what you want. d25-1y

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Cocks and Cockerels.

A few well-bred White Leghorn Cocks and Cockerels can be had at $1 each, from
n9-4t S. K. STANTON, Trenton, Wayne Co.

Pure Bronze Turkeys.

A few fine young birds for sale cheap. Address Mrs. Mary H. Warrant, Plainwell, Mich. n

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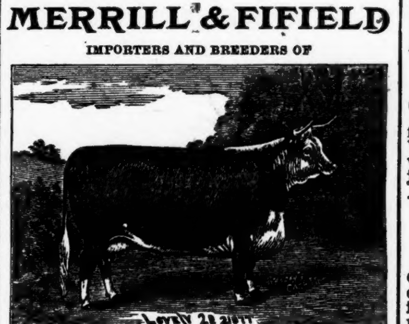
MERRILL & FIFIELD

IMPORTERS AND BREEDERS OF



Hereford Cattle.

Choice stock of the most popular strains of blood for sale at living prices. Correspondence and visits solicited. MERRILL & FIFIELD,
s7- Bay City, Mich.

FARM FOR SALE

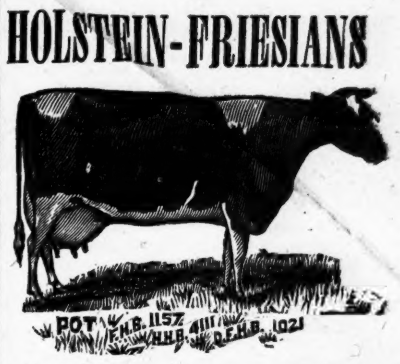
On account of poor health and declining years, I offer for sale one of the best farms in Michigan, consisting of 200 acres of splendid land; some of it suitable for growing celery; 165 acres under good cultivation (most of it without a stump); about 35 acres woods. There are four houses, four barns, stock sheds, piggeries, ice house and dairy on the place, also a never-failing well and wind-mill. Situated on good stone road, some 4½ miles from Bay City, on Center Street, Town of Hampton. E. J. HARGRAVE,
n9-8t Bay City, Mich.

FARM FOR SALE.

A fine farm of 245 acres located one and one-half miles from the growing manufacturing city of Owosso. one of the best markets for farm products in Central Michigan. This farm has good buildings, a fine orchard, and is in a first class state of cultivation. Forty acres of growing wheat. Will divide into 165 and an 80 acre farm if wanted. For prices and terms address
NO. 1 MOFFAT BUILDING,
ja26tf Detroit, Michigan.

NEW ADVERTISEMENTS.

GRAND RAPIDS HERD
—OF—
HOLSTEIN-FRIESIANS



About 100 head of both sexes and all ages. Several head of **bulls ready for service,** age up to two ages. Choice cows and heifers bred to my prize bulls **Prins Midium** and **Jonge Carre,** who have no superiors. A specialty of young pairs not akin for foundation stock. ☞ **Everything registered and guaranteed pure-bred.** Write for catalogue and prices or come and see the herd.

M. L. SWEET,
23 Pearl Street, (Sweet's Hotel Block),
Grand Rapids, Mich
sep2-

L.W. & O. BARNES,

— PROPRIETORS OF —

"LAKE VIEW" STOCK FARM,

Byron, (Shiawassee Co.) Mich.

Breeders of pure bred Poland China swine and registered Merino sheep. Swine recorded in O. P. C. Record. Our herd is one of the finest and best bred herds in the State, and has taken more premiums at the Michigan State Fair in the past five years that any other herd. We breed only from animals of fine quality, as well as gilt-edged pedigrees. We have now for sale a superior lot of young boars and sows; dark in color, and of fine quality. Prices reasonable. Write, or come and see us. Special rates by express.

ATTENTION
Breeders of Southdown Sheep!

A rare chance is given to secure a thoroughbred flock of Southdown sheep. The only flock in this State recorded in the American Southdown Record. It is headed by the ram

VISCOUNT 516,

from the flock of Lord Walsingham, of England. The flock consists of 26 ewes, eight ewe lambs, seven rams and seven ram lambs, all registered or eligible to registry.

They must be sold to close up an estate and will be sold at a bargain. For particulars address E. T. MONTGOMERY,
o19- Ionia, Mich.

FOR SALE.

The Michigan State Agricultural College offers for sale at very reasonable prices:

Four registered Merino rams.
Two Southdown rams.
Two Berkshire boars, one year old.
Poland-China and Berkshire pigs, three to five months old.

Shorthorns of both sexes, good individuals and of excellent breeding. All stock registered or eligible. Address SAM'L JOHNSON,
Prof. of Agriculture and Sup't of Farm.
s28-8t

Greenwood Stock Farm

Poland-China Swine a Specialty.

Stock recorded in Ohio Poland-China Record. Correspondence and inspection invited.

B. G. BUELL,
3tf Little Prairie Ronde, Cass Co., Mich

Shorthorns For Sale.

Bulls, heifers, cows, and calves of choice milking strains and sired by high bred bulls. For particulars address

B. J. BIDWELL.
my4tf Tecumseh, Mich.

WE, the Todd Improved Chesters, have been Crowned KING in the show ring

On the farm with us may be seen a very fine flock of Shropshire sheep For Circulars containing full particulars, address S. H. TODD,
Wakeman, Ohio.

Shorthorn Bulls For Sale.

Sired by Proud Duke of Fairview 20790, and Lord Barrington Hillhurst 52431, out of Young Mary, Phyllis, Lady Elizabeth, Peri Duchess and Rose of Sharon cows. Also a few cows and heifers. Reliable catalogues always on hand for distribution. WM. CURTIS & SONS,
Addison, Lenawee Co., Mich.
Addison is on the new Michigan & Ohio Railroad. Residence connected with State Telephone

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High-Bred Shorthorn Bulls For Sale.

Parties desiring a first class bull will find it to their interest to look our stock over before buying elsewhere. They are of high individual merit and breeding. Prices low; terms easy. Address
WHEELER BROS.,
mr31-tf Homer, Calhoun Co., Mich.

HOLSTEIN-FRIESIANS!

I have about Twenty head of fine

Cows, Heifers and Calves,

for sale at reasonable prices and on easy terms. Write for description, prices and records, stating what is wanted. A. L. FORBES,
je8-tf Stockbridge, Mich.

FOR SALE!

Light Brahmas, White Cochin and B. B. R. Game Bantams (young stock). I am obliged to close out my stock of pure-bred Poultry. Now is your chance to get good stock at very low prices. Address F. D. NICHOLS,
au24-13t Berrien Springs, Mich.

Union Herd of Poland-Chinas.

Stock recorded in both Ohio and American records. Special rates by express. A choice lot of April and May pigs at $10 to $15 each.
o26-8t HENRY M. MORSE, Union City, Mich.

FOR SALE,

Four Shorthorn bulls, Fifty Poland Chinas and a good assortment of Merino rams. All stock recorded or eligible and will be sold cheap. Address S. CHAFFEE, Byron, Shiawas'e Co., Mich

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HOLSTEIN-FRIESIANS!
They Must be Sold!

In order to reduce my stock I will make price as follows for the next six weeks:
Calves from $40 upwards.
Yearlings from $75 upwards.
Cows from $90 upwards.
All stock registered. Also some fine Duroc Jersey pigs and Bronze Turkeys. Write for what you want. GEORGE IVESON,
o19-tf Somerset Center, Mich.

JERSEY RED, POLAND-CHINA, Chester White, Berkshire & [illegible] shire Pigs. Southdown, Cotswold and Oxford Down Sheep and [illegible] Scotch Collie Shepherd Dogs and Fancy Poultry. Send for Catalogue. [illegible]

Poetry.

LOVE HIDING.

Love was playing hide and seek,
And we deemed that he was gone,
Tears were on my withered cheek
For the setting of our sun;
Dark it was around, above,
But he came again, my love!

Chill and drear in wan November,
We recall the happy spring,
While, bewildered, we remember
When the woods began to sing;
All alive with leaf and wing,
Leafless lay the silent grove;
But he came again, my love!

And our melancholy frost
Woke to radiance in his rays,
Who wore the look of one we lost,
In the far-away dim days;
No prayer, we sighed, the dead may move,
Yet he came again, my love!

Love went to sleep, but not forever,
And we deemed that he was dead;
Nay, shall aught avail to sever
Hearts who once indeed were wed?
Garlands for his grave we wove,
But he came again, my love!

—*Frank Leslie's Popular Monthly.*

WOMAN'S TEARS.

The fountain of a woman's tears
Lies closer to her heart than man's.
She lives by moments, he by years;
She pities where he looks askance.

First she to act the Christian part,
Keener to feel for grief and pain;
Perchance it is because her heart
Is less a stranger to her brain.

Howbeit—'tis womanly to weep,
And her sweet, sudden tears oft shame
Our better selves from torpid sleep
To win a purer, nobler name.

Dear, tender, tear-dimmed woman eyes!
How oft your tender, pitying tears
Have lifted from us, garment-wise,
The pent-up bitterness of years.

How oft your tears in some dark day,
Down dropping, sweet as scented thyme,
On our rough hearts, have kissed away
The stain of some intended crime.

—*Brooklyn Magazine.*

Miscellaneous.

ONE JULY AFTERNOON.

A Story for Farmers.

"I'm going to town, Mary," said Mr. Harris, as he rose from the dinner table and shoved his chair noisily across the room. "If you've got anything to send, get it ready, quick."

"There's butter and eggs," answered his wife. "But I was thinking—"

"Well, get it ready, then. I wouldn't go, but Bob's broke the rake, and it's got to be fixed; and we have the rest of that hay to put in before night; and it looks like rain, too. I'll be around in five minutes and I don't want to have to wait. Put the eggs in bran, as I'm going fast, and fix the butter up right away." And he turned and walked swiftly a few steps, then paused and called, "Make out a list of what you really need, too."

"I wish I could have gone!" sighed Mrs. Harris, loud enough for her husband to hear. He frowned dismally.

"Oh, yes, that's the way! What on earth do you want to go to town for? It'll take you till sundown to get ready, and the baby'd squall all the time. Can't I get everything?"

"Oh, yes, I suppose so. I know I can't go; I've enough to do here, but I thought, perhaps—"

She paused, and her husband, as if waiting for the pause, turned and walked quickly away. Mrs. Harris' thoughts were busy enough as she hastened to the cellar.

"Oh, dear!" she sighed, "I do want a calico dress out of this butter money, and it won't be 20c. a pound much longer. I'm afraid Will won't get it if I ask him, but it seems as if I could wear this no longer; it's so warm."

And she looked down at the faded brown worsted that had been worn all winter and until now—July—nearly all the time. It was a very warm-looking dress, and on this afternoon her flaming cheeks and moist features did not need much to assert how uncomfortable she was, for the day was very warm. She was interrupted by an emphatic, "Whoa, now," from without before the butter was quite ready. The baby above, awakened by his father's loud voice, set up a loud scream, and the same voice came down to the nervous woman in impatient accents.

"Mary Jane! It does seem as if women are getting awful slow. I could have done three times what you have in this time," he added, as she came up from the cellar with a heavy three-gallon jar in her arms. He sat in the spring wagon composedly as she placed the butter in, and watched her go back for and fetch the large basket of eggs.

"Now what do you need?" he asked, gathering up the lines.

She told him quietly, and then nervously glancing into his face, she added:

"I guess there'll be enough left for some calico."

He looked amazed.

"Calico! Did I ever! What's that for?"

"Me a dress."

Did her face look tearful? It was unnoticed.

"A dress! Why, you don't need a dress: you've got a dozen. What ail's that one? That'll last a year yet.

"It is so warm, Will, it nearly makes me sick to wear it. If I had a calico—just a cheap one; ten yards will do—I could put this away for winter again."

"O nonsense! Where's all that gingham you got?"

She glanced at his own garments.

"Part of it is on your own shoulders, and the rest was used the same way for you and the children."

He made no reply. except to chirrup to the horses and begin to turn the wagon round. Then, catching a glimpse of her face, something of his better nature (for he was not a bad man at heart) stirred within him and he said:

"Well, I'll see; may be I can get it; and if I'd known I'd be this late starting you might have gone, though I don't see why you wanted to go, for 'tain't been three months since you went to town and staid half the afternoon. Get up, Charlie!" And he was soon out of sight in a cloud of dust.

Mrs. Harris felt like sitting down on the shady door-step as she turned to go in, but she knew she could not. The baby had tired itself out crying, and was lying sobbing in the cradle. The dinner table was just as they left it, and that must be done before supper. She gave a glance toward the green trees and white tombstones of the graveyard close by, and suppressed quickly the bitter sigh that arose at the thoughts of the three little graves over there which held her sacred dust. She had long ago seen it was better thus. She sat down to soothe the sobbing baby, and under his mother's gentle touch he soon gave signs of a more comfortable state. She was very tired; she had done a hard day's work already, and was not half done.

Mr. Harris had a quantity of hay down, and kept himself and the boy and two hired men busy. Of themselves, there was only the father, mother and two children, the oldest and the youngest of the five. Twelve years it was since she had married good-natured, hard-working, ambitious Will Harris, whom every one said would "make money:" and they said, also, that he had done unusually well in securing Mollie Sanders for his wife. How golden the coming years looked to them! Mollie was graceful, lively and the prettiest girl in the country, and everybody knew she had taken the premium for her butter, and was far-famed for her bread-making. But it was "Mollie" then, never "Mary," and very few ever knew her name was Mary Jane. It was only in the last few years since she had been less sprightly and quick of foot, that he had called her Mary Jane. She did not mean to worry him, but she could not get around as she had used to, while he improved in appearance and capability every year. She did not reason why it was, but she felt the cause. "A continual dropping will wear away a stone."

She was aroused from her reverie by the striking of the clock. She laid the baby, in a fitful, feverish slumber, in his cradle, and hastened to the work. When she had the dishes washed and her hair combed, how much better she should feel, she thought; but she must feed the two hundred young chickens, ducks and turkeys before then, so that it was after three when at last the dishes were washed and in their places. Rob had come up for a jug of water for the men. He was only eleven, but he could work; his father had seen to that. The sun was so hot she wondered how the men could stand beneath the scorching heat, and then the familiar sound of horses' hoofs warned her her husband had returned. She stood still by the door till she heard his voice speaking to the horses, and then in a louder tone:

"Come out and get these things."

She went out with her finger on her lips, trembling lest his voice had awakened the baby.

"Sun's awful hot," was his comment, as he piled her arms full of packages. "Wish you'd bring the swill pail as you come back. Those hogs haven't had a blessed mouthful to drink, I'll be bound, since morning."

She could have said that she had watered them a time or two herself, but she said nothing. The large tobacco pail was nearly full of swill, but she carried it out, and used all her strength to lift it to his reach as he sat there. He turned to speak as he started off.

"I saw Johnson, and he wanted butter, so I let him have it on the account there. There wasn't any left to get that calico, but I got it myself, so try and not get anything more till you have marketing enough to get it, for I can't buy so much out of hand."

She watched him drive away, holding the pail carefully poised over the wagon bed; but the next instant she was in the house. There was cooking to do for supper, and berries to pick, and if the baby would only sleep! She unrolled the calico. It needed only a glance to tell her there was not enough, and she soon saw the amount was seven yards. She couldn't have her calico dress after all, and her butter must go on a bill for blacksmithing, and she must take a slur from the one who should have given her better, because it had gone so deep in pocket, that forty-two cents which "he had paid himself" for the calico. There had been over three dollars' worth of butter!

She sighed and took up her burdens again. The baking was done when the baby waked, and she thought he seemed better. She sat him up in his high chair by the window. The sky was cloudy now; the men were hurrying back and forth in the hay field, and Rob was riding the rake. She picked her berries and had supper on the table as the men came in at six o'clock and the first big drops of rain descended.

"How did your calico suit?" asked Mr. Harris, as she handed him his coffee.

She looked him in the face.

"There is only seven yards," she said.

"Well!"

"Well, did you think seven yards would make a dress for as big a woman as I am, Will?"

The hired men laughed.

"I could most put mother in my pocket," said Rob.

Mr. Harris looked at his wife. She was very poor and slender, weighing perhaps a hundred pounds. Her fingers were scarcely larger than the baby's, and he saw they were not as large as Rob's. Yes, she had taken his lot to be hers. She had red cheeks and bright blue eyes then. Her cheeks were scarlet with fatigue and heat, now, but not round and soft as they were then, and her eyes had a weary look in them. "Can't be my fault" ran through her husband's mind.

She certainly looked badly, but it did not seem to him that she could mind so much as that the hurry, quick words and impatience that were his habits. He took the milk pails and went to the cow barn, as usual, after supper. He was destined to have his ears opened. The men had preceded him to the barn to care for their teams. The rain had nearly ceased, and he was finishing the milking when he caught the sound of his own name.

"I tell you, I pity her," Joe Ames was saying. "What with her being everlastingly on her feet, her sick baby, and Will's own fault finding, it's a wonder she's alive."

"Pshaw!" answered coarse John Mills. "That's the way o' women; give 'em an inch and they'll take miles. The only way they're any good is to give 'em lots to do and keep them at it. And as for that young'un, if she warn' allers pettin' of it, it wouldn't be so tarnal cross."

"I know better," was the retort, "Mother remembers when Will and his wife were married, and there never was a smarter, likelier girl anywhere. And Will was good, too, but he's got in such a way to make money, and the more she works the more she has to. Then they've buried three children, and mother says her hard work helped to shorten their lives, and—"

"Oh, you're a perfect baby yourself, that's my notion," sneered John.

"And I tell you," proceeded honest Joe, "if the poor thing goes on this way much longer, there'll be another grave over there for she's next to sick now, and I wish Will could see it."

He began to see it. He sat on the milk stool listening. He thought of long ago and now, the changes noticed at supper. He remembered how often she had received, as reward for her toil, short words from him. Not that he meant them so, but he was in haste always, and she surely was very slow; but then if, as Joe was saying, she was sick—and the words, "another grave over there," seemed to ring in his ears. His lips closed spasmodically as he caught the last words of the conversation, as they closed the barn doors for the night.

"Well, then, why don't he get her some help? He has himself and Rob and us, and she—didn't you see her to-day toting the things back and forth while he looked on from the seat in the wagon! Made me mad. Wait till I get married!" And they passed out of hearing with these words.

Mrs. Harris came up to the door as usual to get the milk. Her husband watched her closely as he said:

"I can carry them in for you."

The look of wonder she flashed in his face made his heart beat rapidly. He watched her arrange the milk, giving a lift to the heavy pails and jars, occasionally. Picking up the empty pails, she, turning toward the kitchen, glanced at him. How tired she looked! He took the pails away from her and closed the milk house door. He placed both hands on her shoulders.

"Mollie," he said, in a husky voice, "tell me; have I been abusing you?"

She looked surprised, and he went on hurriedly:

"I heard to-night I was a brute; that you were worked to death, and got no sympathy except from strangers. They think you've changed since you married me, and I guess—I guess (he paused and drew her close in her arms) that it is all so, Mollie; but believe me, dear, that in my haste to make money I forgot you could not stand this, and that it was not that I no longer have your happiness in view. Do you believe me?"

Then he suddenly left her alone, for it is a hard thing for a proud man to come to confession. She sank on the floor and suffered hot tears to flow. Tired, sick, heart-weary, she felt a moment since as if she should drop with fatigue. She arose soon, and having washed the pails, took the baby from Rob and sat down in the sitting-room where they all sat. The rain had cooled the air off, and as she rocked to and fro with the child asleep in her arms, she looked up to find her husband's eyes on her. She smiled.

"Mollie," said he, "would twenty-five yards of calico and two hired girls be any help to you?"

"Half the quantity will be all sufficient, my dear," she answered.

And Joe told John, as they went up to bed an hour later, that he really did believe Will must have heard their talk in the barn.

But the girl was forthcoming next day, and stayed for many a day, and the baby, not having a tired, over-heated mother, cut its teeth, and speedily grew strong and fat, and the roses and smiles came back to Mrs. Harris' face, and chased the weary look out of her eyes.—*U. F. U., in Farm and Fireside.*

The Stolen Cow.

Ben: Perley Poore, who seems to be as good at telling stories about animals as men, tells in an exchange the following remarkable anecdote of a stolen cow:

A man stole a cow from Morristown, N. J., and drove her to Philadelphia for sale. She was a common cow enough except that she had lost her tail but about six inches. The thief, fearing that by the shortness of her tail he might be traced, had procured in some way (probably from some slaughter house) another cow's tail, which he fastened so ingeniously to the short tail that it was not to be known that it had not regularly grown there. As soon as the Jerseyman missed his cow, he set off for Philadelphia, thinking she would probably be carried there for sale; and it happened that when he came to the ferry he got into the same boat that was carrying over his cow and the fellow who stole her. As it was natural that he should have his thoughts very much upon cows, he soon began to look at this one with very great attention. She was indeed very much like his cow, he thought. Her marks agreed wonderfully, and she had exactly the same expression of face, but then the appearance of her tail was so very different.

It must be supposed that the new owner of the cow felt rather uncomfortable during this examination, for he soon saw that this was the person whose property he had stolen, and he was very uneasy least he should take hold of the tail which he looked at so continually. Upon the whole, he thought it best to divert his attention in some way, if possible, and therefore steps up to him and says, "Neighbor, that is a fine cow of mine, won't you buy her? you seem to know what a good cow is." "Oh, dear me," says the other. "I've just had a cow stolen from me." "Well," says the thief, "I'm sorry to hear they've got to stealing cattle, but I'll sell off, and you could not better replace your loss than by buying this cow; I'll warrant she's as good as yours." "Why," says the Jerseyman, "she was exactly like this one, only that she had no tail to speak of, and if this one had not such a long tail, I'd swear it was my cow."

Everybody now began to look at the cow's tail, but the thief stood nearer to it than anybody, and taking hold of it so as to just cover the splicing with his left hand, and with a jack-knife in his right, pointing to the tail, he said: "So if this cow's tail were only this long, you'd swear she was yours." "That I would," says the other, who began to be very much confused at the perfect resemblance of his cow except in this one particular, when the thief, with a sudden cut of the knife, took off the tail just about an inch above the splicing, and throwing it overboard, bloody as it was, turned to the other and said, "Now swear it's your cow!" The bewilderment of the poor man was now complete; but as he had seen the tail cut off, and saw the blood trickling from it, he could, of course lay no claim to the animal from the shortness of her tail. Indeed, here was proof positive that this was not his cow; so the thief, going over with him, sold him the cow without any further fear of detection.

A HAPPY OCCASION.

"Do not come too late." That was the wording of the telegram which Captain Richard Irton held in his hand as he sat, in a temperature of 100° in the shade, on the veranda of his Indian bungalow.

"Do not come too late?" he muttered to himself. By Jove, as if it were probable that he would dawdle now! It was just like Mrs. Lennox to send such a chaffing wire as this. He might have been a long time making up his mind, but it was made up now, and he meant to go home and marry her. It was her last letter that had settled the matter—the letter in which she hinted that Lord Shorthorn was awfully "mashed." No, he wasn't going to stand by and see Dorothy Lennox married to a cad like Shorthorn. He had been a whole year, he reminded himself, in this infernal station with its furnace heat, its insane gossip, and its eternal tennis and polo. How he loathed the very sight of his major's wife, with her white eyelashes, her malicious giggle, and her flirting manners!

And then he thought of Mrs. Lennox. He remembered the first night he had met her—in the ballroom of a great house in London—and how he had seen her surrounded by a dozen other fellows, and how he had "made the running," and had cut out all those outsiders. And he recollected the call he had paid next day at her tiny house in Park street, when she had been so sweet and graceful, and had talked to him as no women had ever talked before. He didn't go in for brains or any of that rot, but, by Jove! Dorothy Lennox made him feel another fellow. He thought of the cool amber-tinted room where she always sat, with its drooping palms, its masses of azaleas, its Rajon etchings, and its blue-and-white Nankin. It was always cool and cosey in Mrs. Lennox's house, and she had a way of taking a fellow's hand and looking him seriously in the eyes which was quite irresistible. He remembered how it had become almost a habit to drop in of an afternoon, to lounge on her soft divan, and listen to her half-chaffing talk and her low delicious laugh. And when a woman is deuced good-looking as well as clever, why what is a fellow to do? Perhaps it was wrong to make love in quite such a serious way as he did, but, hang it! she wasn't a kitten, and she might have known he wasn't the marrying sort.

All that was a year ago, but he hadn't forgotten her a bit—worse luck. And her letters—how awfully nice they were! how like herself! Not spoony, like those he wrote to her; but frank, humorous, and thoroughly *bon comarade*. Hang it all! it was much easier to keep heart-whole in London than in this sultry and monotonous hole. He had managed to evade compromising himself definitely even when he had gone to bid Mrs. Lennox good-bye, although he had been perilously near proposing to her that last evening; but he had got away, and nothing had been said which would have tied him down to an engagement.

Dick, in his roving life, had committed every folly except that which he considered the hugest folly of all—the folly of tying yourself to one woman for life. He remembered how he had congratulated himself on all this when he went on board the Jumna. Was he, the best looking fellow and keenest sportsman in the One hundred and Fiftieth hussars, to knock under like any spoony young sub, the moment he met a pretty woman? But now things were changed. He had never bargained, somehow, for her marrying again; he had got to look upon her more or less as his own. When she had written that letter with all the allusions to Shorthorn in it, his blood had fairly boiled. He didn't regret a bit the letter he had written in reply, telling her he was leaving India the very day he could get leave, and asking her to be his wife. After all, why shouldn't he marry? He was over 30, and he had, as he remembered with a smile, his "fling." The other fellows in the regiment used to chaff him and call him "casual," and said he never did to-day what he could put off till to-morrow. But that was all nonsense. He could make up his mind like other men, even to matrimony. And here was her answer to his letter: "Do not come too late." Well, he had got his leave and would be with her in three weeks.

Mrs. Lennox was the sort of woman about whom people's tongues are always wagging. Hardly was her late husband borne beneath nodding plumes to Kensal Green than she was married, in perspective, to at least a dozen admirers. She was a great success in society, for besides being a charming woman, she was a fashionable poetess, writing words for Tosti's songs, and publishing small volumes of verse, bound in white parchment, and printed on extra thick paper. Tall and slight, with smooth dark hair and liquid eyes, she had a face full of character and determination. To look at Mrs. Lennox was to know that she was a woman who rapidly made up her mind, and who, once having done so, was not likely to alter it. But two years had passed away since her husband's death, and this nineteenth-century Sappho had not consoled herself. And then had come the Dick Irton episode.

It was a bright morning in June when Captain Irton arrived at Charing Cross station, thoroughly fagged and wearied with his long journey. He had come as fast as P. and O. steamers and mail trains can bring a man from Bombay to the Strand. But in a couple of hours he hoped to have rid himself of all signs of travel, to have got inside a decent coat, and to be in the shady drawing-room in Park street, with Dorothy Lennox's soft arms round his neck. He felt very sleepy and somewhat aggrieved, for he had nursed the unreasoning hope of seeing her at the station, although she could not possibly know exactly when he would arrive. He had started by the very next mail from Bombay, so that writing would have been useless. He felt, indeed, that he had answered her telegram in a very practical fashion. How overjoyed she would be to have him back! He hoped it would not be too much for her—seeing him suddenly again like this. So, throwing himself on the bed in his room at the Grand hotel, he fell asleep.

When Dick awoke it was three in the afternoon. Tubbing and unpacking took an hour, and then he had to go out and buy a tall hat. After this he directed the cabman to the house in Park street.

The shady Mayfair street looked bright and pleasant as his hansom rattled along, the houses smartened up for the season with new blinds, and window-boxes full of daisies and spirea. A light breeze blew in his face, and a couple of fair-haired girls in pink cotton made a bright patch against the gray-toned houses. By Jove! how awfully nice it all was, after India! A man might be very happy in London, with a charming wife who would know how to give little dinners, and the club, and the theaters, and the park.

Pulling up at the house, Dick's jaw fell. There was an awning from the door to the curbstone, with a crowd of nursemaids and urchins gaping on each side. The street was full of carriages, too. What did it mean? Then Dick remembered that Mrs. Lennox gave a great many afternoon parties. Well, it was deuced disappointing, he said to himself, when you had come all the way from India to see a woman, to find she was giving one of those infernal kettledrums the very day you arrived.

Inside the house there was the usual elbowing, well-dressed crowd that you see any afternoon in the season in Mayfair. Boys in gray coats with pink carnations in their buttonholes jogged old club-men in brown coats and white gardenias. In the dining-room hook-nosed dowagers were foraging for ices, while on the landing frisky matrons loitered with their temporary swains.

On the stairs Dick met a woman he knew, an enthusiastic girl of forty-three, who was dressed in more juvenile garb than when he had last seen her. Murmuring "Charmed to see you back—happy occasion?" she tripped past him.

"Happy occasion, was it?" said Dick to himself, wishing his gushing acquaintance and the rest of the guests at the bottom of the sea. It would have been a happier occasion still if he could have found his Dorothy alone in her amber-tinted room.

When Captain Irton reached the door, he could see Mrs. Lennox standing in the midst of a small crowd of people, who all seemed to be talking at once. By Jove! how "fetching" she looked in her silver-gray gown, with a hugh bouquet of orchids, and that gray tulle thing she had on her head! Was that a new fashion, Dick wondered, for women to wear bonnets of their own "at home?" And there was that ass Shorthorn close beside with a particularly fatuous expression on his face! It was high time he had written, Dick thought; it was high time he had come. Why, the fellow was fargone—over head and ears; Dick could see that by the way he appropriated Mrs. Lennox with his eyes.

Then one of the circle moved away, and Dorothy turned and saw Captain Irton at the door. She looked as if she had seen a ghost. Coming forward, he took her hand, and then he saw that something was wrong. Without a word she motioned him into an adjoining room, which for the moment was empty.

"Good God!" she whispered, "why have you come now? I wired that you were not to come, that it was too late. I wrote, too, but you cannot have got my letter."

"Too late, Dorothy, what do you mean? Your telegram said 'Do not come too late.' Well, I started the next day."

"Poor Dick," she said at last, "what a dreadful mistake you have made! 'Do not come. Too late,' was the message I sent. Did you not remember that there are no full-stops in telegraphy? I was married an hour ago to Lord Shorthorn. Come in, and let me introduce you to my husband."

And this was Dick Irton's little mistake. There are no full-stops in telegraphy, but when, ten minutes later, Dick saw Lord and Lady Shorthorn drive off amidst showers of rice and slippers, he knew that he had had a moral full-stop which he would remember all his life.

The Birthplace of Abraham.

Not far from Aleppo is situated the little town of Orfah (the ancient Ur of Chaldees), which is of great historical interest, it having been the birthplace of the patriarch Abraham. There are few Jews in this place, but the Abars still point out a small building lying outside the town, which they declare to be the house wherein Abraham first saw the light, and which they therefore term Beit El-Chalil (the house of the friend of God). It is most improbable that the actual house should have stood for thousands of years, but the building in questiou is of great antiquity. By its present owner, an Arab peasant, as well as the Arabs generally, it is held in the utmost veneration, the more so since it is feared that within a few years it will fall to the ground.

A Hard Fate

it is indeed, to always remain in poverty and obscurity; be enterprising, reader, and avoid this. No matter in what part you are located you should write to Hallett & Co., Portland, Maine, and receive free, full particulars about work that you can do and live at home, at a profit of at least $5 to $25 and upwards daily. Some have earned over $50 in a day. All is new. Capital not required. You are started free. Either sex. All ages. Better not delay.

Little Tony, aged eight, asks his little playmate: "How old are you, Lucille?" "I'm six, Tony." "Oho! six years, indeed! Are you quite sure? You women are always making yourselves out to be younger than you are."

Mr. W. Howells has written for *The Youth's Companion* three charming articles, recording his early life in Ohio. It is his actual experience, not fiction, and it brings out, with many exquisite touches, the life of a boy in a Western log cabin.

Prof. E. W. Stewart says the cultivation of buckwheat brings steady and hopeless impoverishment of the soil. It is of no value as a soiling crop, either.

HALE'S HONEY is the best Cough Cure, 25, 50c., $1.
GLENN'S SULPHUR SOAP heals and beautifies, 25c.
GERMAN CORN REMOVER kills Corns & Bunions, 25c.
HILL'S HAIR & WHISKER DYE—Black & Brown, 50c.
PIKE'S TOOTHACHE DROPS cure in 1 Minute, 25c.
DEAN'S RHEUMATIC PILLS are a sure cure, 50c.

FIRE AND BRIMSTONE.

A GLANCE INTO THE INTERIOR OF OLD MOTHER EARTH.

The Globe We Live On Very Bad at the Core.

"Talking about earthquakes," said Prof. Van Benthuysen, "calls to mind a question, which, standing alone, is of startling significance to the people of this continent. It is one that has been under discussion for many years, but I believe that the problem was solved when the shock occurred in 1884. The particular place where that earthquake originated affords little room for speculation. The main fact proved by that shock was directly to the point that the interior of the earth is in a highly-heated state.

"There are no facts to disapprove this assumption, but many to support it. If it is not in a fluid condition so largely as to interfere with its rigidity, which is counted equal to a ball of steel, this is said to be because of the great weight with which the exterior presses toward the center. Notwithstanding the facts already mentioned, a cooling process is steadily going on. Geologists claim that it has required twenty-five millions of years to acquire its present external form of solidity, and that during this period the mountains were formed and the hollows of the seas made, by a sort of wrinkling of the surface as the globe of liquid fire and heated gases contracted to its present shape. According to this idea, the solid crust of the earth extends down from ten to forty miles, there being beneath that a greater or less thickness of plastic material, from melted rocks, etc., under high pressure, while the crust of the earth is all the time in a high state of tension from the gradual cooling of the interior, causing cavities and allowing the superincumbent earth to crowd down closer to its heated core."

Another theory propounded by the Professor, and one which admits of very little criticism, is to the effect that the access of water, also by percolation from the earth's surface to these subterranean ovens, it is thought, may in some cases cause explosions, dislocating vast quantities of material, and perhaps by opening communication with the still hotter portion yet lower down, be the cause of some of the most destructive volcanoes. These explanations, while being to a small extent hypothetical, accord with all that is known by acknowledged authorities. Another significant point is that they afford the best theory yet advanced to account for the earthquake which is now agitating the minds of people all over the globe. The geologist, waxing warm to his subject, insisted that we have hardly made a pin-scratch upon the crust of the earth. The further we go down the warmer it is. An illustration of this is supplied in the fact that the artesian wells supplying the city of Paris from a depth of nearly 1,800 feet yield water of 82 degrees Fah.; and the lower levels of the comstock mines have an almost uniform temperature of 130 degrees Fah. It is estimated that the heat increases at the rate of one degree for every fifty feet, and this would give a temperature to melt the hardest rocks in less than ten miles.

MURDERING GUNS.

STEEL CANNONS WHOSE USE IS TO RIDDLE TORPEDO BOATS.

The Part They Will Play in the American Navy.

The October issue of *Harpers Monthly* contains an illustrated article by Admiral Simpson of the American navy that deals with the construction of the steel guns that are to be used to arm the new war ships that Secretary Whitney is going to build. Incidentally the modern machine gun, or quick-firing gun, is mentioned as a "murdering gun," although the article is chiefly devoted to the method of constructing big breech-loaders. A naval officer who talked about these "murdering guns" recently, said:

"One has only to stop to think a moment to appreciate the tremendous advance made in the construction of guns during the present century. Every one is familiar with the fact that a very large number of the privateers that did their country such great service in the last war with England were armed with six-pounders—cannon that threw a ball of cast iron weighing six pounds. These guns were mounted in broadside, much as the nine-inch guns on the big wooden frigates that form the greater part of our navy now are mounted, and it required about five men to serve them well. They were fired perhaps once in five minutes. Although the principle weapon of the little war ships of seventy-five years ago, the six-pounder is now one of the little guns to be used as the flint-lock muskets were used in those days, to repel attacks from small boats and pick men off of exposed parts of an enemy's ship. This latter service gives them the names of murdering guns. The six-pounder of 1812 was usually a brass piece, and the charge of powder was so small that the balls failed often to penetrate the thick plank of an enemy's ship. It is a fact, that, until within forty years, thick timber in the top sides of a ship was a sufficient protection even against the cannon balls of larger degree. But now the quick-firing six-pounder has become an awful weapon of destruction. Its barrel is made of steel. Instead of being fired by touching a flaming match to the priming in the vent of the gun, as its ancient namesake was, it is fired and loaded as well by the motion of a lever. In place of the loose bag of powder and the round iron ball that loaded the ancient one, a metallic cartridge that is made up of powder fulminate and a long steel bolt is used. The cartridges are placed in a magizine connected with the gun, and the motion of the lever throws out the empty shell after the discharge, inserts a fresh cartridge, and fires it. The speed attained at a recent trial of the Nordenfelt six-pounder at Dartford, England, was six rounds in 14 seconds. It could be easily and accurately fired twenty times in a miuute.

"But the speed attained, important as it is, is not the only advantage of these six-pounder quick-firing guns. At the Dartford trial mentioned the gun was tested to show its power. Five iron plates, each an inch thick, were used over an appropriate backing of wood to form a target, yet the steel bolts which this gun threw with such marvellous rapidity passed clear through the five inches of iron plates, the gun being fired at a distance of sixty yards from the target. That is the sort of a weapon that the thin racing shells called torpedo boats have got to face. The little steamer may fly at a speed of twenty-five miles an hour, but unless she can get unobserved within a very short distance of the big man-of-war she seeks to destroy the captains of the top on the masts, which are erected in all ships, will get the range of her with the lightning six-pounders, and before she can travel three times her length will drive such a shower of steel bolts clear through hull, boiler and everything about her that not a soul nor a fragment will be left above water to tell whence she came or mark where she went down. Not even the best of torpedo boats, except through the accident of fog or in the smoke or battle between larger ships can hope to reach an enemy to do him hurt.

"One glory of naval warfare has departed forever—the glory of laying a ship yardarm to yardarm beside the enemy, and to the mad music of the ratchet with sword and pike swarming over the rail and sweeping the enemy from his own deck. It can't be done now because sailormen don't fight on open decks.

A curious test was made with one of the ten-barrel Nordenfelt guns not long ago in India. Two companies of wooden soldiers were set up on a rifle range. A company of fifty men, armed with the best modern rifles, fired at one of the companies of wooden targets at a distance of 1,000 yards, while a ten-barrel machine gun peppered the other company during the same interval of time. It required six men to feed, aim, and fire the machine gun. An examination of the targets showed that the machine gun did as much work as the fifty trained men. But in time of actual battle the trained men, owing to the excitement and fatigue incident to the contest, could not fire with the accuracy nor speed attained in a practice drill at a mark, while the machines, having neither nerves nor muscle, would spout death with unvarying accuracy and speed. It is no longer possible to work a cannon on an unprotected deck, except when out of range of the murdering guns of the enemy. It is not possible to take an enemy's ship by boarding. Small boats can never hope to carry an enemy's ship by pouring a host of men on her deck, nor can torpedo boats approach within torpedo range except by stealth. Naval warfare is being narrowed down pretty well to contests between ships at long range with guns of immense power. A knowledge of mathematics, chemistry, and mechanics is now as necessary for a modern naval seaman as courage and seamanship were to naval seamen seventy-five years ago."

Sam Jones' Daughters.

In speaking of parental duty Mr. Jones says: "I have got girls in the bud now; in two or three years more they will be full blooming young ladies on the carpet. I don't know how you parents feel about it, but I am less concerned about getting my daughters off than any fellow you ever saw. I will board them and take care of them as long as they are good girls, and if they never marry it's all right; but I will tell you what it is, I dont care how badly I wanted my daughters to marry, I would not push them out in certain circles of society. If you have a boy that wants a wife, and knew a girl just like your daughter in every way, would you want your son to marry her—a dancing, giddy, godless, Christless girl, would you? Now, honor bright, would you? You say: No, Jones, I give it up. God knows I want my boy to marry a better girl than my wife raised.

"If you had a sweet, nice daughter, and a fellow had a *fac simile* of your boy, would you like to see her marry him? Let me say this: If I wanted to marry my daughters well I would try to have them taught how to bake bread, fry chicken and do all manner of domestic duties so well that when persons came in our house they would say my wife was the best house-keeper they ever saw, when in fact it was our daughters' work. Then there will be some first-class boy coming here, 500 miles from home, and marry her. I went 500 miles to get a first-class wife from Kentucky, and I got her, too.

I put young men on notice. I told my wife that when any boys came to our house to ask them in the parlor and treat them like gentlemen, and then go out and hunt up little Paul and Bob to come in and see them, but to tell the visitors that my daughters were up stairs studying their lessons. Boys, if you want to see Paul and Bob, just rack around."—*Atlanta Constitution.*

The First Soldier Monument.

Leonard W. Volk, the sculptor, claims that he himself modeled and erected the first soldiers' monument in America. This was for the old circus clown, Dan Rice, who twenty years ago was a person of no small importance and wealth and owned a famous place at Girard, near Erie, Pa. Dan Rice came to Mr. Volk "in a peck of trouble." The two were old friends and had played together as boys on the streets of Pittsfield, Mass., when J. G. Holland was a suckling physician at that place.

"They've been callin' me a traitor and a copperhead," said old Dan (which was perfectly true), "an' now I'm goin' to get the dead wood on 'em. I'm goin' to erect a monument to the heroes of Erie county."

And he straightway ordered a $5,000 "soldiers' monument," which Mr. Volk, some months afterward, unveiled at Girard in the presence of a distinguished company. There were 20,000 people present. Governor Curtin, of Pennsylvania, delivered the oration; ex-Governor Todd, of Ohio, was present, and Dan Rice dined them all royally.

WHAT BREAKS A MAN UP.

It is not this playing at billiards
That tires a man to death;
But its bringing up coal from the cellar
That takes away his last breath.

And it is not the base ball's fierce pitching
That will knock him all of a heap;
But it's sawing a few sticks of green wood
That'll give him a grave long and deep.

And it's not through the midnight carousal
That so many give up the strife;
But its walking the floor with the baby
Deprives a poor fellow of life.

AN OLD-TIMER'S STORY.

HOW THEY USED TO DO ON THE LOWER MISSISSIPPI.

The Struggle for Life of One Man Against Five Land Pirates, and the Way it Ended.

At a down-town hotel the other evening, says the Denver News, there sat smoking a number of men somewhat roughly dressed and well past middle life, and most of them showing that their struggle with life had not been the easiest which is allotted to mortals here below. Among them was an old trapper, who, with Jim Baker, had encountered both grizzlies and Indians by the score, a prospector who had visited every new diggings from San Juan to Fraser River, a freighter or two who had "whacked bulls" from the Missouri to Salt Lake and Virginia City before the advent of the railroads, and several others who had been listening to the strange tales of danger and adventure which a casual meeting had suggested. They had been in many a rush for "new diggings," and in many a "stampede" together, but had never known each other until old age and hard luck had thrown them together in some of the second-class hostelries of the Queen City of the plains.

The conversation lulled finally, and the trio relapsed into silence, as over their pipes they recalled the recollections of pioneer days, when a tall, lank-looking man, with grizzled locks and an unmistakable southern accent spoke: "I've listened to you fellows' yarn about Indians and grizzlies and vigilantes, and now let me tell you one. It is about an adventure I had down the Mississippi a number of years ago."

If you have been down the big river, you know that down below Donaldsonville it spreads out over acres and acres of country on each side of the channel. The further down you go the more country you'll find covered by water, and you can find places where a house can be hidden away so nicely that fifty men might search for her a week and not find her. I went down into that country on a venture of my own. I had a small, snug house-boat and $30 worth of trading cargo, and the idea was to peddle off my stuff to the isolated people along the banks in exchange for furs, and to spend the winter there in hunting and trapping. I took with me my nephew, a boy about eighteen years old, and a couple of good dogs, and reached the spot where I was to tie up for the winter about the first of November. I had pretty good luck in exchanging my goods, and when I tied up there was only about $15 worth of *notions* left. In the bend where I proproposed to winter the overflow was at least ten miles across, and the place selected was all of three miles from the steamboat channel. The water over the bottom lands was about two feet deep on the level, but here and there were sinks where it was deeper, and there were many islands clear above water. There were panthers, wild cats, 'coons, foxes, woodchucks and muskrats in plenty, and I was counting on big luck, when something happened to the boy. He went out with one of the dogs to inspect some of the traps, and, after a couple of hours, one dog came back alone. The other had been stabbed in two places and had died just before reaching the boat.

It was just at night when he returned, and as I could not get out to search before morning, you can imagine something of my anxiety, and how slowly the hours dragged away. I was off at the first peep of dawn, taking the dog along. After a walk of two miles we came upon the boy's dead body. He'd been shot at by one of the tramps, and by some one who had laid hands on him before the shot was fired. The bullet had gone through his heart, and his rifle, knife and other effects had been taken away. Pinned to his clothing was a piece of paper, on which was scrawled; "If you don't leave within two days we'll serve you the same." It was the work of some of the renegades who made that region their permanent home. I was completely knocked out for an hour or so, but then I braced up and vowed vengeance. Law could not reach these men. I buried the body, and then returned to my boat, feeling pretty certain that the men who had done for the boy would soon pay me a visit. I had a rifle, a shotgun and a navy revolver, and the boathouse windows were provided with loopholed shutters. Once shut in no one could get me out unless I was driven out by flames.

It was just before noon the next day when I heard from the expected visitors. I was keeping very shady, knowing they would shoot me on sight, when I saw men pulling a skiff up the channel. There were three whites and two blacks, and if my dog had not given them warning, I should certainly have shot one of them before hailing. The voice of the dog drove them to cover on an island about pistol shot away, and from there they hailed me and wanted to know what I was going to do. I defied them, and pretty soon they opened fire on the boat. The only alarm I felt was that they would seek to board me. In that case five to one was too many. After they had fired thirty-one shots, all of which were harmless to me, I got a bead on one of the blacks and knocked him over. Their plan was then abandoned for another. By the use of their boat they could work all around me, and by and by they had four men posted at different points, and the leader called out that they would remain all winter but that they would have my life. They were close enough to command some of the loop-holes, and each one kept himself so well sheltered that I did not get a shot the whole afternoon. As night came on I made ready for a different attack. I heated the stove-boiler full of water, placed pails handy and made a barricade across the boat's cabin with furniture. The boat lay in such a position that they could only reach me by making use of their skiff, and then only at the stern. The bow was in the water too deep to wade in, and too full of roots and canes for a boat to pass through.

It was near midnight when the growling of the dog proved that some deviltry was on foot. I dipped out a pail of boiling water, had the shotgun and revolver ready, and pretty soon I realized that the quartette had landed on the stern. All of a sudden I flung the door open. Two of them stood there, and as I swished the water over them they went overboard, yelling as if they had been skinned with a knife. The two others had gone forward, one on each side of the boat. They had revolvers, and they turned and opened on me, and the three of us emptied our shooters without any one being harmed. As I dashed into the cabin after my shotgun they followed me. They were so close to me that I could not get the gun, but had to draw my knife. It was dark in there, and the dog took a hand in, and I expect that little shindy has never been matched. We cut, hacked, thrust and used our fists and feet. I got two cuts almost at the beginning, but at the end of five minutes one fellow was lying in a heap and the other begging for quarter. I struck a light and found the one dead and the other bleeding like a hog, with the dog hold of him. I was in a mood to finish him at once, but he begged so hard that I let up on him, only to see him die a couple of hours later. In the darkness I think the fellows must have fallen afoul of each other by mistake, for one had four knife wounds and the other six. I had two, as I said, and the dog had three or four skin cuts. When I got around to look for the two whom I had scalded they were out of the way, and I never bothered them again. I got three rifles, two revolvers, two knives and $63 in money out of the fight, and the loss of my nephew cost three lives.

BALD HEADS.

Fully 30 Per Cent. of the Men in Eastern Cities are Bald.

To a person who has a moderately well-supplied pocketbook and a thoughtful turn of mind there can be no more fruitful theme for meditation than to go into our large halls, theaters, churches and other places of public resort, and, securing a seat in the gallery or the rear part of the room, look at the heads of the audience for no other purpose than to ascertain by actual count how many show signs of baldness. Unless the experimenter has been in the habit of counting for this object, he will be surprised to learn that in most of the Eastern cities fully 30 per cent. of the men more than 30 years of age show unmistakable signs of baldness, while nearly 20 per cent. have spots on their heads that are not only bald, but actually polished with the gloss that is supposed to belong to extreme old age alone. I have been in the majority of the churches and theaters in all the large Eastern cities, as well as in Chicago, St. Louis and other places of the West, and have verified my assertion by actual count. From my observation I find that bald-headed men are most plentiful in New York and Boston: After these come Philadelphia, Washington, and the Western towns. I say "men" for two reasons: 1. Because women usually wear their hats or bonnets on such occasions, thus covering their crowns. 2. In case their hats are removed the hair is combed so as to cover any possible bald spot, or else there is an artificial "switch" to hide the defects of nature. So, without indulging in any speculations regarding what may be, I will confine myself to what is to be seen.

Here are a few observations taken in Boston: Trinity Church, 543 men; 71 actually bald and 46 indications of baldness. King's Chapel, 86 men; 38 actually bald and 14 indications of baldness, Hollis-street Theater, orchestra at performance of the "Mikado," 63 men; 27 actually bald and 10 indications. Boston theatre, Judic, 126 men; 51 actually bald and 43 indications.—Popular Science Monthly.

Senator Ransom's Constituents.

Senator Matt Ransom is noted among other things for his remarkably long and stiff shirt cuffs, and for his inability to keep up a correspondence. He will not, he cannot, he says. answer letters. When Senator Vance was Governor the second time, Ransom was serving his first term in the Senate. It was necessay to get his official signature to a document, and the Governor wrote and wrote, but could get no answer from Ransom. He was obliged finally to send a messenger to the Senator, and when the Governor and Senator met shortly after in Raleigh, Vance took Ransom to task, but the Senator only laughed, and it is impossible for any one to get vexed with Ransom. A few minutes later the Senator met a constituent from a rural district, a hayseed constituent, with long hair, tangled beard, and blue jean trousers. The Senator greeted him like a long-lost brother, held both hands, asked after the wife and children, and invited the constituent to come to his house and take dinner any time.

"Matt," said the man, rather soberly. "I've been layin' it up agin you, because you don't answer none of my letters. Reckoned you might have got a little too high toned. 'Twant like you, Matt, but I couldn't just come to any other conclusion"

"Why, bless you," replied Ransom with overflowing good nature. "I know I didn't. I've been too busy. Why, only just now the Governor was scolding me for not answering his letters. I told him I hadn't answered yours, and if I couldn't find time to write to you, he couldn't expect I was going to be able to write to him."

Was ever more adept rubbing of the fur the right way? And the man went home to the rural district conscious that he was a man of far more consequence in Ransom's eyes than the Governor. No wonder Ransom's grip on his State is so great that he doesn't need to write letters.

Imagination and Sickness.

Two young girls were at dinner at their home in Marseilles, when they were told that a special friend of theirs had died the previous night, of cholera. At once they became very nervous, and left the table precipitately, ordered a cab and told the driver to take them as fast as possible to the town of Aix, some distance from Marseilles. When the cab got outside the city, the coachmac looked through the window to ask the address of the place to which he was to go. He saw one of the girls in convulsions and the other utterly unconscious. In his turn, the driver got frightened, abandoned the cab, and ran about like a madman. When the police, who were sent for, arrived and opened the cab, they found one girl dead and the other dying. A little way up the road they found the coachman lying on his face, dead.

HENRY COLERIDGE.

His Celebrity as an Eloquent Soliloquist and Author.

Henry Coleridge calls his celebrated uncle "the eloquent center of all companies, and the standard of intellectual greatness to hundreds of affectionate disciples, far and near," and says, "a day with him was a Sabbath past expression deep and tranquil and serene. Throughout a long drawn summer day would this man talk to you in low, equable, but clear and musical tones, marshalling all history, harmonizing all experiment, pouring such floods of light on your mind, that you might like Paul, become blind in the very act of conversion. In all this he was your teacher and guide, but in a little while you might forget that he was other than a fellow student, a companion, so playful was his manner, so simple his language, so affectionate the glance of his pleasant eye." De Quincy says, "Coleridge led me at once to the drawing-room, rang the bell for refreshments, and omitted no point of courteous reception. That point being settled, Coleridge—like some great Oreliana, or the St. Lawrence, that, having been checked and fretted by rocks or thwarting islands, suddenly recovers its volume of waters and its mighty music—swept at once, as if returning to his natural business, into a continuous strain of eloquent dissertation, the most novel and illuminated that it was possible to conceive."

Now these are the reports of enthusiastic young disciples, and must be taken *cum grano salis.* But there is little difference in reports of older men.

"His society," says Wordsworth, "I found an invaluable blessing, and to him I looked up with equal reverence as a poet, a philosopher and a man." Carlyle, who never praised a living man, is the only one who does not speak in terms of enthusiastic reverence and acknowledge the effect of a new vitalizing mental force.

Why People Were Buried.

When people began to bury their dead they did so in the firm belief in another life, which life was regarded as the exact counterpart of this present one. The unsophisticated savage, holding that in that equal sky his faithful dog would bear him company, naturally enough had the dog in question killed and buried with him, in order that it might follow him to the happy hunting ground. Clearly, you can't hunt without your arrows and tomahawk; so the flint weapons and trusty bow accompanied their owner to his new dwelling place. The wooden haft, the deer sinew bowstring, the perishable articles of food and drink, have long since decayed within the damp tumulous; but the harder stone and earthenware articles have survived till now, to tell the story of their crude and simple early faith. Very crude and illogical, indeed, it was, however, for it is quite clear that the actual body of the dead man was thought of as persisting to live a sort of underground life. A stone hut was constructed for its use, real weapons and implements were left by its side, and slaves and wives were ruthlessly massacred, as still in Ashantee, in order that their bodies might accompany the corpse of the buried master to his subterranean dwelling. In all this we have clear evidence of a very inconsistent, savage, materialistic belief, not indeed in the immortality of the soul, but in the continued underground life of the body.

Brian Boru.

Brian Boru, or Boroimhe, is said to have been the son of Kennedy, King of Munster, Ireland. The story goes that his first warlike exploits were performed under the banner of his brother, the King of Cashel. After his brother's assassination he became King of Munster, and as such compelled the Danes of Dublin to pay tribute. He was engaged in a long and finally successful war against Malachy, the King of Tara, and his nominal over lord. In the end he was acknowledged as lord even by the O'Neils, and Malachy, their chief, followed in his train as an under king. The whole island had now submitted to him, but the Danes made an effort to re-establish their supremacy. Leinster joined the Ostmen, but they were overthrown by Brian in twenty-five battles, and finally, at Clontarf, in 1014, Brian, who is said to have been eighty-three years of age, did not command in person, but remained in his tent, where, after the victory had been won, he was killed. Tradition makes Armagh his burial place. Brian Boru must be regarded as the popular hero of early Irish history, and the stories told about his reign led to its being regarded as a sort of golden age. The O'Briens and many other distinguished Irish families claim him as their ancestor.

THE WILD MAN OF OHIO.

A Curious Creature Seen Among the Hills of Holmes County.

A party of hunters, who have just returned from a hunt in the hills of Holmes County, Ohio, say they encountered a curious creature on their trip. According to their description, a wild man, or some other strange being, is at large in Holmes County. The party who report seeing this strange creature claim that he or it looked like a man, but acted like a wild beast. The creature was encountered near a brushy thicket and willow copse near what is known as Big Spring, where General Buell rested on his march through Ohio, at a point a short distance south of the Wayne County line in Holmes County. The hunters were beating the brush for pheasants when the attention of one of the party was attracted to an object that suddenly darted across an opening in the brush. Later on the object was again seen along the edge of the brush. By this time the hunters had reached open ground, and were surprised to see what they describe as a man, entirely nude, but covered with what appeared to them to be matted hair. When seen he was some distance away, but on discovering the hunters he started toward them on a run, and gave forth queer guttural sounds. On seeing the strange being moving toward them the party of hunters, which included four persons, all armed with shot guns, broke and ran. The strange creature pursued them for a short distance until the party had reached a public highway, when he turned back and was seen to enter Killbuck Creek, which he swam, and then disappeared in the brush again. On approaching the water he dropped on all fours and plunged in like a dog, swimming in a manner similar to a canine. The hunters did not have the nerve to return, but got away from the place as soon as possible. They are emphatic in their assertion that they encountered a wild man and describe him as above, but they are of the impression that he is no relative of the famous wild man of Rockaway.

Good Water.

Good water should be tasteless and odorless when either fresh or stale. After long standing it should show no sediment. If, when boiled, it turns white, it contains lime; brown, iron, clay or vegetable matter. If after long standing it has a slight moldy smell, it has passed through marshy land and contains germs and organic substances. All such water should be carefully avoided.

Some Big Figures.

A mathematical calculation which is just old enough to make interesting Sunday reading once more is based on the following passage from the Book of Revelation: "And he measured the city with the reed 12,000 furlongs. The length and the breadth and the heighth of it are equal." This pretty little calculation, which is being freshly quoted, is as follows: "Twelve thousand furlongs, 7,920,000 feet, which being cubed, 1,496,793,088,000,000,000,000 cubic feet. Half of this we will reserve for the throne of God and the court of heaven, and half the balance for streets, leaving a remainder of 124,168,472,000,000,000,000 cubic feet. Divide this by 4,096, the cubical feet in a room sixteen feet square, and there will be 30,321,823,750,000,000 rooms. We will now suppose that the world always did and always will contain 990,000,000 inhabitants, and that a generation lasts for thirty-three and one-third years, making in all 2,970,000,000 every century, and that the world will stand 100,000 years, or 1,000 centuries, making in all, 2,970,000,000,000 inhabitants. Then suppose there were 100 worlds equal to this in number of inhabitants and duration of years, making a total of 297,000,000,000,000 persons, and there would be more than 100 rooms sixteen feet square for each person."

Mrs. Cleveland's Drive.

Mrs. Cleveland takes advantage of the weather for driving, and none cares more to enjoy it than she. Every afternoon the carriage is ordered, and Mrs. Cleveland has some lady friend to go with her. The ladies tell the coachman to drive them out into the country where they can see the beautiful trees turning to autumn colors. Mr. Cleveland does not care particularly about looking at the change of colors in the leaves, but sometimes he is prevailed upon to go. Very often Mrs. Folsom accompanies her daughter; sometimes little May Cadmuch, Mrs. Folsom's little niece, occupies the front seat, but it is rarely that Hector is invited. Hector is not such a favorite with his mistress, as every one would have you to suppose. He would much rather be in the kitchen, or in the pantry with Sinclair, than acting propriety upstairs. Hector gets his ride though. He goes every morning out in the White House market wagon. Sinclair takes him to the grocer's and the butcher's. Hector enjoys this riding much better than he does the long drives with his mistress.

VARIETIES.

THE DOCTOR GOT THERE.—A week or two ago Bill Higgins, Frank Rhoads, Arthur Miller and others were engaged in conversation on Second and J Streets, and, strange enough, the talk was of monumental liars they had met. Rhoads had just finished relating a whopping story he had heard, when Arthur Miller observed Dr. Blucher Morrison slowly perambulating down J Street, and remarked: "Talk about your boss exaggerators, here comes one who is no slouch; when the doctor gets here I will tell a whopper, and then observe with what ease and grace he knocks me silly." When the doctor came up Miller turned to Higgins and said: "You talk about its being hot here, why it ain't a circumstance; I remember being in the southern part of this State once when it was so hot that at a poker game they had to use small wooden rakes in pulling in the coin, and finally, the coin got so infernal hot that they couldn't touch it at all, and had to substitute ivory chips." "That was purty derned hot," remarked the doctor, who had listened attentively to Miller's story. "and it reminds me of a spell we had once on the Missouri River, which was the hottest season I ever saw. I was working at a camp in a kitchen made of rough boards, and we used to hang the tinware on nails driven into the wall; one day it got so hot that the solder in the vessels all melted, the tin fell to the floor, and there was not a doggoned thing left hanging on the nails except the wires which had been in the handles of the tins.—*Sacramento Bee.*

SOMETHING OF A STORY.—As an illustration of the "colossal liars" of the West, General McCook relates the following: He was traveling among the Rocky Mountains, and straying one morning from the trail, stood for a moment entranced by the magnificent landscape spread before him, when he was aroused from his meditation by the footsteps of one of the guides who had followed him lest he should lose his way.

"Is not this magnificent, Bill?" exclaimed the General, anxious to share his delight.

"It's mighty purty, Gineral," said the guide, "but I kin show you bigger sights nor this. Why, one time Kansas Jim and me had been trampin' three days and nights, and we came to a plain, and right in the midst of it was a forest all turned to solid stun!"

The General smiled and remarked:

"I have heard of petrified trees before, Bill."

The guide expectorated without changing countenance and continued: "But that warn't all, Gineral; thar war a buffalo on that plain and he war petrified on the clean jump, and his hufs had kicked up a bit of sod, and I'm blamed ef that ain't petrified in the air!"

The General turned an amused countenance on the narrator and said:

"Why, Bill, the sod would have fallen to the ground by the force of gravity."

Without any hesitation Bill answered:

"Well, by —— Gineral, the gravity war petrified, too!"—*Boston Commercial Bulletin.*

HIS PASSING OBSERVATION.—As the train slowed up at a station, a commercial-looking man, who had been noticed in earnest conversation with another party of the same general appearance, was heard to remark: "Smart! He's the smartest drummer you ever met anywhere. Why, he's smart enough to sell suspenders to a dog."

The other commercial-looking man nodded his head at this very happy illustration, and everybody thought the conversation was ended, when a lonesome-looking individual on the opposite side of the car remarked:

"It doesn't take a very smart man to sell suspenders to a dog."

Evon the sleepy passengers aroused at this startling remark by the lonesome-looking individual, and the commercial man asked in some surprise:

"Why not?"

"Because it doesn't."

"What would a dog want with suspenders?"

"To keep up his pants," softly murmured the lonesome-looking individual, gazing out across the snow-swept waste, with a far-away look in his voice.

And the astonished brakeman sighed so loud as to crack every lamp chimney in the car.

WHAT WAS FOUND IN THE TROUT.—A drummer for an eastern house sat amid a group of colleagues who were admiring his veracious style of spinning "calkers," when one of the gang said: "Tell us a fish yarn, Bob." "I'll go ye," said Bob, and forthwith he commenced: "I took my vacation last week, and I came across President Cleveland, who was fishing in the Adirondacks. I invited myself to become one of the party, and had a good time. While we were throwing flies in the pools Grover dropped his seal ring in the water. He took it easy, as though he never expected to see it again. About half an hour later we hooked a fine large trout, which, when he was landed, was cut open, and what do you think was found in him?" "Here! here!" the crowd exclaimed; "somebody pull the chestnut bell." "You can't pull any brlls on me unless you guess what was in the trout." "Spring something new, Bob; the ring story is too old." "I have said nothing about the ring; when the trout was opened we found the New York base ball club hiding from the Chicago."—*National Weekly.*

A DOUBLE SURPRISE.—"What do you mean by using such violence toward your wife?" asked the Austin Recorder of Sam Johnsing. "I didn't use no violence, boss." "But you did; her face is all swollen up from the blow; didn't you strike her?" "Yes, boss, but hit was an accident; I'se neah-sighted." "What has that got to do with it?" "Heaps, boss, heaps, yer see, I was at de gate, and was gwinter go down town, an' I jess kissed my han' ter Matildy." "Kissed your hand to her?" "Yes, boss, kissed my han' ter her; but owing to the defec' in my eyes, I sposed she was mor'n twenty feet off, but she wasn't; she was so clus ter me dat de back ob my han' hit her smack in de mouf; I neber was so s'prised in my life." "Well, there is another surprise in store for you. You pay $20 and costs or go to the county jail."

HENRY CAREY, a cousin to Queen Elizabeth after having enjoyed Her Majesty's favor for several years, lost it in this manner. As he was walking in the garden of the palace under the Queen's window, she asked him in a jocular manner: "What does a man think when he is thinking of nothing?" The answer was a brief one. "Upon a woman's promise," he replied. "Well done, cousin," said Elizabeth; "excellent!" Some time after he solicited the honor of a peerage, and reminded the Queen that she had promised it to him. "True," said Her Majesty; "but that was a woman's promise."

CERTAIN TO CHARM.—Pretty Girl—"An old woman told me to-day that I ought to get some love powder, and she said she guessed you kept it." Druggist—"You can make it yourself by mixing half a teaspoonful of sugar with a—a minute quantity of powdered starch." "Yes, and how will I give it to him?" "You must invite him to a supper which you prepare, and slip it into his coffee." "And will it make him want to marry me?" "It will if the coffee is good and everything else well cooked."—*Omaha World.*

"WHAT kind of a cake do you call that?" asked a young husband at the tea-table.

"Sponge cake, my darling, and I made it myself," replied his wife.

"Sponge cake, is it?"

"Yes; what kind of cake did you think it was?"

"I thought it might be stomach cake."

"You are real mean, so you are."

Chaff.

The wind is always blowing about something; but there is nothing in it.

"Waiter, there is a button in this soup." "Well, it's all the bone the cook had to-day to make soup of."

It costs $10,000 to convert a South Sea cannibal to Christianity, and then he is only worth $9 a week in a dime show.

"There comes the press gang," remarked the old gentleman as the regular suitors of his four daughters ascended the steps.

A genius in Troy has invented a stove that saves three-quarters of the wood, while the ashes it makes pays for the remainder.

"Waiter, is this an old or new herring that you brought me?" "Can't you tell?" "No." "Well, then, what difference does it make?"

Weeping Widow—And such a good man, sir! Busy Undertaker—No doubt, no doubt; but a little wide—a little wide for the average man.

In what profession is the greatest amount of ill-temper displayed? The medical; for the reason that the doctors so often "get out of patients."

A Denver paper devotes 24 columns of space to a negro murderer who was hanged there last week. The sheriff let him off with a single line.

An enterprising firm is making a small fortune by sending a receipt to prevent hydrophobia. It is very simple: "Keep out of the dog's way."

The Boston *Transcript* tells of a spinster in that town who says that she wants to get married because the Bible says that "there is none good, not won."

"Papa," said a little five-year-old, pointing to a turkey gobbler, strutting around in a neighbor's yard, "ain't that red-nosed chicken got an awful big bustle?"

A Syracuse son-in-law says his wife's mother-in-law is an angel. This does not seem strange when the fact is known that she has been dead several years.

"Sis," said a bright youth to his sister, who was putting the finishing touches on her toilet, "you ought to marry a burglar—you have the false locks and he has the false keys."

An exchange says: "A young lady writes to inquire how long a young gentleman should be acquainted with her before she allowed him to kiss her. Long enough for the father and big brother to have gone to bed."

Homes are like harps, of which one is finely carved and bright with gilding, but ill-tuned, and jarring the air with discords, while another is old and plain and worn, but from its chords float strains that are a feast of music.

"What sort of soup is this?" ssid a gentleman in an up-town boarding-house the other day to a waiter. "Why that's bean soup," was the reply. "Well, I know it has been soup, but what the deuce sort of soup is it now?" queried the interrogator.

Gets Left.—"I can say one thing in favor of Mr. Featherly," remarked Mrs. Hendricks, the landlady, "he never takes the last piece of bread on the plate." "No, indeed, Mrs. Hendricks," assented Dumly, cordially, "Featherly ain't quick enough."

First Small Boy (triumphantly)—You didn't go swimmin' like us. You ain't had no fun! Second Small Boy—Well, I dunno, I reckon if I turn my shirt inside out and wet my hair under the hydrant I can get a licking just the same as you will when you get home.

Junior Alley, reading a fashion item that "great latitude is allowed in coat sleeves," remarked with a far-away look in his eyes: "I am glad to know that I am in the fashion, as I allow my coat sleeves great latitude when I am alone with my best girl!"

"The car is full of alumni," whispered Miss Beckonstreet to her friend from the West as they both journeyed Cambridgeward in the horse car. "Yes, said the Chicago girl, "and how it chokes one up, don't it? I wonder they do not open the ventilators."

A basting machine capable of doing the work of 15 girls, is being experimented with in this city, but no one has yet invented a basting machine capable of doing the work of one mother and one slipper upon the boy who "hooks away to go in swimming."

Sampson performed great wonders, one of which consisted in lifting the gates of Gaza. Sampson never tried to lift a mortgage, or raise a Grant monument fund in New York. Sampson knew well enough that it was better to confine his efforts to something easy.

Mr. Mann-Hatton—Do you know Miss Beaconstreet, that you are the exact opposite of the accepted type of Boston girls? Miss Beaconstreet—Indeed! and pray what is the accepted type of Boston girls? Mr. M. H.—Oh, all intellect and no style, don't you know?

Mr. Patron says: "If Andrew Jackson heard a lamb bleat in the night he would get up and see to it." Oh, well, we know a man right here in Detroit, who is so tender-hearted that if he hears a kitten, even an infirm old kitten, mew in the night, he will get up and look after it—with a gun.

"More labor troubles," sighed Costigan, putting on his coat, "more labor troubles; when will the laboring man in this land have peace and his honest rights?" "What's the matter," asked his wife, "another lockout?" "No," said the laborer, wearily, "the boss has yielded, and I have got to go to work again."

Sick Headache.—Thousands who have suffered intensely with sick headache say that Hood's Sarsaparilla has completely cured them. One gentleman thus relieved writes: "Hood's Sarsaparilla is worth its weight in gold." Sold by all druggists. 100 doses $1.

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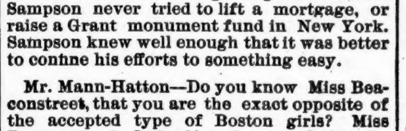

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Vests (average size), $30; Lung Shields, $10; Belts, $10; Scrotal Suspensories, $5; Chest Shields $5; Soles, $1. A pair of soles free with every $10 purchase. For belts, give size of waist; for soles give size of shoe.

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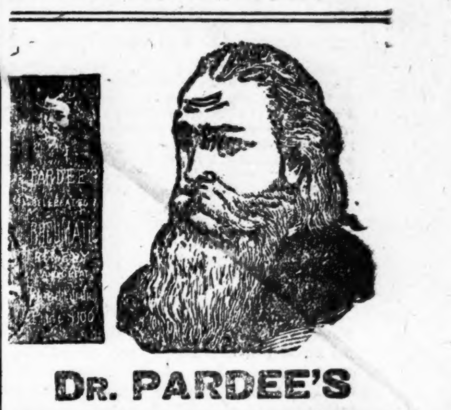

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And all Diseases arising from an enfeebled condition of the system.

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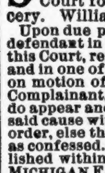

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STATE OF MICHIGAN.—In the Circuit Court for the County of Wayne. In Chancery. William N. Carlisle vs. Ellen Carlisle.

Upon due proof by affidavit that Ellen Carlisle, defendant in the above-entitled cause pending in this Court, resides out of the said State of Michigan and in one of the United States or Territories, and on motion of Sylvester Larned, Solicitor for the Complainant, it is ordered that the said Defendant do appear and answer the bill of complaint filed in said cause within five months from the date of this order, else the said bill of complaint will be taken as confessed. And further that this order be published within twenty days from this date in the MICHIGAN FARMER, a newspaper printed and published in the said County of Wayne, and be published therein once in each week for six weeks in succession; such publication, however, shall not be necessary in case a copy of this order be served on the said defendant personally at least twenty days before the time herein prescribed for her appearance.

Dated this 22d day of October, A. D. 1886.
WILLIAM JENNISON, Circuit Judge.
A true copy. Attest:
JOHN MARSHALL, Deputy Register. o26-6

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Veterinary Department

Conducted by Prof. Robert Jennings, Veterinary Surgeon. Professional advice through the columns of the Michigan Farmer to all regular subscribers Free. The full name and address will be necessary that we may identify them as subscribers. The symptoms should be accurately described to ensure correct treatment. No questions answered professionally by mail unless accompanied by a fee of one dollar. Private address, No. 201 First St., Detroit, Mich.

Chronic Lameness in the Feet of a Horse.

EATON RAPIDS, Nov. 15.

Veterinary Editor of the Michigan Farmer.

I have a brown horse, ten years old, that went lame in August in his forward feet; would stand with his feet stretched forward resting on the heels after going a short distance; would seem all right on a walk. Had him shod about the first of October; was better in a few days; used him some for about three weeks; took his shoes off, got very lame again. His feet do not seem contracted; can detect no undue heat anywhere; he steps square on his foot but as if his leg was stiff; has never been overdriven but has been worked at ordinary farm work. Always in travelling he would strike the toe first, wearing the shoe thin on the toe; have done nothing for him. SUBSCRIBER.

Answer—From your description of symptoms in your horse, we are inclined to belive trouble to be in the feet, and would advise the following application. Bin-iodide of mercury, one drachm; cosmoline, one ounce; mix well together, apply to the feet above the hoof, rubbing it well to the skin with the fingers, once only; tie the head up short to prevent the animal getting its nose in contact with the blister for three or four hours. In two days dress the feet with lard and when well dried in rub the part well with the fingers and apply a little more lard; when dry repeat the rubbing. When the scurf formed by the blister is all off clean and the hair has started to grow, should the animal continue lame repeat the blister and dress in like manner.

Parturient Apoplexy in a Cow.

HUBBARDSTON, Nov. 22, 1886.

Veterinary Editor of the Michigan Farmer.

I would like to know what to do for my cow. She had an attack of milk fever and I gave your Bovine Panacea which worked like a charm; I shall recommend it to everybody. I would not have given ten cents for her before I commenced using it. She got upon her feet all right, but her hind parts feel hard and her ankles seem weak; fore parts all right; eats well and chews her cud; gives quite a good mess of milk and looks well; calf runs with her. If you can tell me what to do for her you will confer a great favor, as the cow is a very good one. J. C.

Answer.—Give the following: Sulphate magnesia, two pounds; Jamaica ginger root, pulverized, four ounces, mix well together and divide into twelve powders. Give one dissolved in one pint tepid water night and morning. Give good nourishing food and let her have exercise if the weather is not stormy, but do not turn her out with other cattle.

Button Farcy.

PONTIAC, Nov. 24, 1886.

Veterinary Editor Michigan Farmer.

Will you please answer this? I am disputed as to the proper treatment of button farcy. Six grains of cantharidies, four grains of blue vitriol, six grains of calomel, one grain of strychnine, one tablespoonful of globular [Glauber?—ED.] salts, half tablespoonful sulphur is what I prescribed. Give me a like prescription, if I am right, that I may show it to the court under your signature. J. W. B.

Answer.—We cannot indorse your treatment of button farcy and cannot give you a like prescription for the disease. When the symptoms and condition of the animal are properly described we are always ready to advise the subscribers of the FARMER regarding the treatment of diseases in their stock, but are not inclined to correct prescriptions to be used in courts of law without an expert fee.

Commercial.

DETROIT WHOLESALE MARKET.

DETROIT, Nov. 30, 1886.

FLOUR.—There is a quiet but steady market at unchanged prices. Quotations are as follows:

Michigan, stone process	$3 50	@3 75
Michigan roller process	3 50	@4 00
Michigan patents	4 25	@4 50
Minnesota, bakers	3 85	@4 10
Minnesota, patents	4 50	@5 00
Rye, Western	3 25	@3 40
Low grades	2 50	@2 85

WHEAT.—The market opened strong yesterday, weakened, and then advanced to points ¾@⅞c higher than on Saturday, closing firm. The visible supply only increased 20,000 bu., owing to the destruction of fully three-quarters of a million at Duluth by fire. There were also reports of a good export demand at New York. Closing quotations here were as follows: No. 1 white, 77½c; No. 2 red, 79¼@79½c. Futures, No. 2 red, December, 79c; January, 79¾c; May, 87c. No. 1 white, December, 79c; January, 79½c. The market was highest at the close.

CORN.—Market higher with good demand. No. 2, 39c; No. 3, 38¼c; No. 4, 38c; No. 2 yellow, 39¼c.

OATS.—Firm but quiet at advanced prices. No. 2 white, 32½c: No. 2 mixed, 28¾c.

BARLEY.—The market is steady with No. 2 State selling at $1 20 ℔ cental, and No. 2 western at $1 25.

RYE.—Quoted at 53c ℔ bu., with improved demand.

FEED.—Bran is quoted at $10 75@11 00 per ton; coarse middlings, $11 00; fine middlings, $13@14 ℔ ton.

CLOVER SEED.—The market declined during the past week, has recovered a part of the loss, and is steady. Prime, $4 45; December delivery, $4 45, January, $4 52½c ℔ bu.

BUTTER.—Fancy lots of dairy quoted at 18@19c; good to choice sells at 16@17c, and creamery at 26@28c. Market dull.

CHEESE.—Market firm and unchanged. Michigan full creams, 12@12½c; New York, 13c, Ohio, 11½@12c ℔ lb.

EGGS.—Market easier at 21@22c for fresh stock; limed, 17@18c.

APPLES.—Ordinary to good lots are worth 1 50@1 75 ℔ bbl., and fancy $2@2 25 ℔ bbl. Market steady.

FOREIGN FRUITS.—Lemons, Messinas, ℔ box, $4 00@5 00; Malagas, $3 75@4 25; oranges, Jamaica, ℔ bbl., $7 25; ℔ 100, $2 50; bananas, ℔ bunch, $1 75@2 50 for yellow; cocoanuts, ℔ 100, $6 00; Malaga grapes, $5@5 50 ℔ bbl.

BEESWAX.—Steady at 22@30c ℔ lb., as to quality.

HONEY.—Quoted at 11@13c ℔ lb. for comb, and 7@9c for extracted. Supply large.

BEANS.—Market continues quiet but steady at $1 38@1 40 ℔ bu. for new city picked mediums; new unpicked, 75c@$1 05 ℔ bu. as to quality.

BALED HAY.—New is quoted at 8 00@9 00 ℔ ton for clover, 10 50@13 00 for No. 1 timothy, and 9 00@10 50 for No. 2. These prices are for car lots.

SALT.—Car lots, Michigan, 80c per bbl.; eastern, 95; dairy, $2 10 per bbl, according to size of sack; Ashton quarter sacks, 72c.

POTATOES.—Market unchanged; car lots quoted at 35@38c for Burbanks, and 35@37c for Rose. Store lots quoted at 40@45c ℔ bu.

HOPS.—Best eastern, 34c ℔ lb.; Michigan 25c; California choice, 30c; 1885, 18c.

CABBAGES.—Market steady. Shippers are paying $2@2 25 ℔ 100.

ONIONS.—Market quiet and dull, at $1 80 @2 ℔ bbl.

CRANBERRIES.—Quiet but steady at $6 75 @7 50 ℔ bbl. for Cape Cod, or $2 50@2 75 ℔ bu.; Michigan, $1 50@2 00 ℔ bu.; Jersey, $1 75@2 ℔ bu.

CIDER.—Clarified held at 10@11c ℔ gallon; common 6@7c.

POULTRY.—Market dull. Quotations are 3 @4c per lb. for roosters, 6c for hens, 6@7c for ducks, 7@8c for turkeys, and 6@6½c for spring chicks. Dressed quoted as follows: Chickens, 7@8c; turkeys, 9@10c; ducks, 9@10c; geese, 8@7c. Market overstocked with turkeys, but other kinds only in fair supply yesterday.

DRESSED HOGS.—Packers quote $4@4 25 for heavy and $4 50 ℔ cwt. for light weights.

TIMOTHY SEED.—Selling from store in bagged lots at $2 05@2 10 ℔ bu.

HIDES.—Green city, 6½c ℔ lb., country, 7c; cured, 8@8½c; green calf, 8@9c; salted do, 9@10c; sheep-skins, 50c@$1 25; bulls, stags and grubby hides ⅓ off.

PROVISIONS.—Market unchanged except for family mess and clear pork, which has declined a trifle. Quotations here are as follows:

Mess	$	@10 25
Family	12 25	@12 50
Family clear	13 00	@
Lard in tierces, ℔ lb	6¼@	6½
Lard in kegs, ℔ lb	6½@	6¾
Hams, ℔ lb	10¾@	11¼
Shoulders, ℔ lb	6¼@	6½
Choice bacon, ℔ lb	8¼@	8½
Extra mess beef, per bbl	7 25	@ 7 50
Tallow, ℔ lb	3½@	

HAY.—The following is a record of the sales at the Michigan Avenue scales for the past week, with price per ton.

Monday—32 loads: Nine at $14; six at $13; four at $13 50; three at $15 and $14 50; two at $12; one at $13 25, $12 50, $11 50, $11 and $10 50.

Tuesday—9 loads: Three at $14 and $13; two at $16; one at $14 50.

Wednesday—17 loads: Four at $16 and $15; three at $15 50 and $13; two at $14 50; one at $14.

Friday—37 loads: Seven at $15 and $14 50; four at $14, $13 and $12 50; two at $15 50, $13 50 and $11; one at $16, $14 25, $13 25, $12 and $11 50.

Saturday—34 loads: Ten at $15; nine at $14; five at $16; three at $13; two at $14 50, $13 50 and $12; one at $12 50.

LIVE STOCK MARKETS.

[By telegraph.]

Below we give the latest reports from the live stock markets east and west for Monday, Nov. 29th.

BUFFALO.—Cattle, receipts 1,360; prices advanced 5@10c; common to fair, $3 75@4 50; good to choice shipping, $4 35@4 75; stockers and feeders weak at $2 75@3 75; extra, $4 75. Sheep, dull, receipts 400; prices declined 5@10 cents; common to fair, $3@3 50; good to choice; $3 75@4; bulk of sales at $3 50@4; lambs, good to choice western, $4 75@5 25; extra, $5 50. Hogs, receipts 18,250; steady and firm; light pigs, $3 60@3 75; selected Yorkers and selected medium weights, $3 90 @4.

CHICAGO.—Cattle, receipts 10,000; shipments, 3,000; market weak and 10@15c lower; shipping steers, 950 to 1,000 lbs, $3 30@5; stockers and feeders, $2 10@3 45; cows, bulls and mixed, $1 50@3 20; bulk, $2@2 45; through Texas cattle, cows, $2@2 60; steers, $3@3 60. Hogs, receipts, 40,000; shipments, 10,000; market strong and 10 cents higher: rough and mixed, $2 65@3 95; packing and shipping, $3 90@4 10; light, $3 10@3 90; skips, $2 20@3 25.

At the Michigan Central Yards.

Saturday, Nov. 27, 1886.

CATTLE.

The offerings of cattle at these yards numbered 667 head, against 844 last week. Cattle were in good demand, but the quality was rather poor and several loads of good butchers' cattle could have been placed at at good prices. For the offerings buyers paid an advance of 10@15 cents over last week's prices. The following were the closing

QUOTATIONS:

Extra graded steers, weighing 1,300 to 1,450 lbs	$4 50@5 00
Choice steers, fine, fat and well formed, 1,100 to 1,300 lbs	4 00@4 50
Good steers, well fatted, weighing 950 to 1,100 lbs	3 75@4 25
Good mixed butchers' stock—Fat cows, heifers and light steers	3 25@3 50
Coarse mixed butchers' stock—Light thin cows, heifers, stags and bulls	2 25@2 60
Stockers	2 40@2 75
Bulls	2 00@3 00

Adams sold Phillips a mixed lot of 6 head of fair butchers' stock av 986 lbs at $3.

Jedele sold Ross a bull and a steer av 1,470 lbs at $3 12½, and a bull weighing 1,050 lbs at $2 50.

Devine sold Marx 3 fair heifers av 940 lbs at $3, and 2 thin ones av 630 lbs at $2 60.

Angell sold Ross 16 thin heifers av 742 lbs at $2 65, and a bull weighing 1,260 lbs at $2 12½.

McMullen sold Marx 2 fair heifers av 885 lbs at $3.

Spicer sold Phillips a mixed lot of 5 head of coarse butchers' stock av 794 lbs at $2 25.

Bunnell sold Sullivan & F a mixed lot of 16 head of thin butchers' stock av 842 lbs at $2 50.

Angell sold Sullivan & F 3 thin cows av 986 lbs at $2 30.

Gleason sold McIntire 4 fair heifers av 760 lbs at $2 90.

Tabor sold sold Sullivan & F 7 stockers av 704 lbs at $2 40, and a bull weighing 1,740 lbs at the same price.

Capwell sold John Robinson 7 fair heifers av 673 lbs at $3, and a mixed lot of 5 head of coarse butchers' stock av 916 lbs at $2 25.

Shafer sold Reagan a mixed lot of 6 head of thin butchers' stock av 753 lbs at $2 40, and a bull weighing 790 lbs at $2.

Jenks sold Phillips a mixed lot of 5 head of thin butchers' stock av 694 lbs at $2 60.

Wyman sold John Robinson a mixed lot of 11 head of thin butchers' stock av 746 lbs at $2 50, and a cow and a bull av 935 lbs at $2.

Spicer sold Brocka 4 feeders av 1,025 lbs at $3 25, and 2 stockers av 690 lbs at $2 50.

McMullen sold Burt Spencer a mixed lot of 16 head of thin butchers' stock av 823 lbs at $2 55, and 3 thin heifers to McIntire av 760 lbs at $2 50.

Gleason sold Switzer & Ackley a mixed lot of 8 head of fair butchers' stock av 813 lbs at $2 70.

Shafer sold Sullivan & F a mixed lot of 22 head of thin butchers' stock av 786 lbs at $2 50.

Capwell sold Marx 2 fair heifers av 880 lbs at $3.

C Roe sold John Robinson 25 good cows and heifers av 900 lbs at $3.

SHEEP.

The offerings of sheep numbered 5,332 against 5,651 last week. The market opened up with an active demand. Good sheep sold at about last week's prices, but common grades advanced 15@25 cents per hundred, and closed firm.

C Roe sold Downs 103, part lambs, av 68 lbs at $3 50.

Cross sold Downs 41 av 85 lbs at $3.

Plotts sold Downs 218 av 76 lbs at $3.

Sweet sold Fitzpatrick 85 av 72 lbs at $2 40.

Dennis sold Downs 101 av 97 lbs at $4 25.

Merritt sold Downs 49 av 85 lbs at $3 75.

Snyder sold Downs 41 av 72 lbs at $3.

Merritt sold Geo Wreford 67 av 65 lbs at $2 35.

Middleton sold Downs 117 av 79 lbs at $3 50.

C Roe sold Downs 93 av 92 lbs at $3 75.

Judson sold Downs 70 av 77 lbs at $3 25.

Hodges sold Downs 113 av 86 lbs at $3 50.

Brown sold Donaldson 127 av 72 lbs at $3 25.

C Switzer sold Donaldson 101 av 71 lbs at $3.

C Roe sold Donaldson 67 av 80 lbs at $2 50.

Burdoin sold Stabler 183 av 90 lbs at $4.

Stevenson sold Downs 83 av 75 lbs at $3 25.

Newman sold Fitzpatrick 25 bucks av 104 lbs at $2.

Brougham sold Burt Spencer 105 av 81 lbs at $3 35.

Woodworth sold Geo Wreford 98 av 65 lbs at $2 05.

McCaul sold Fitzpatrick 20 av 68 lbs at $2 30.

Tabor sold Fitzpatrick 28 av 74 lbs at $3.

Wyman sold Downs 92 av 88 lbs at $3 50.

Lovewell sold Burt Spencer 68 av 63 lbs at $2 10.

Giddings sold Stabler 75 av 73 lbs at $3.

Judson sold Downs 69 av 80 lbs at $3 25.

Stabler sold Burt Spencer 47 av 88 lbs at $2 20.

Gleason sold Downs 33 av 81 lbs at $3 25.

Nichols sold Downs 196 av 83 lbs at $3 25.

Woodworth sold Donaldson 203 av 92 lbs at $3 75 and 207 av 72 lbs at $3.

C Roe sold Downs 144 av 92 lbs at $4.

Capwell sold Burt Spencer 139 av 80 lbs at $3 50, and 25 bucks av 91 lbs at $2.

HOGS.

The offerings of hogs numbered 3,320 head, against 3,277 last week. The market opened up slow with buyers and sellers apart. During the week there had been a sharp decline at other points, and sellers were unwilling to concede a like decline here. Finally when reports were received from the east that the prospects were not flattering, they concluded to accept their losses here, and closed out the offerings at prices 15@20 cents lower than the prices ruling last week.

Wallace sold Webb Bros 122 av 209 lbs at $3 55.

Bunnell sold Sullivan & F 68 av 232 lbs at $3 60.

Snyder sold Pierson 18 av 237 lbs at $3 55.

Burdoin sold Judson 112 av 235 lbs at $3 65.

C Switzer sold Stevens 54 av 156 lbs at $3 40.

Adams sold Sullivan & F 46 av 210 lbs at $3 60.

Griffin sold Ransom 153 av 188 lbs at $3 60.

Stabler sold Bigley 81 av 234 lbs at $3 65.

Haywood sold Clark 78 av 196 lbs at $3 60.

Gleason sold Webb Bros 64 av 270 lbs at $3 60.

Lovewell sold Clark 68 av 260 lbs at $3 60.

Patton sold Sullivan & F 66 av 224 lbs at $3 55.

Merritt sold Sullivan & F 20 av 163 lbs at $3 60.

Sweet sold Sullivan & F 66 av 214 lbs at $3 60.

Brougham sold Clark 60 av 218 lbs at $3 60.

Middleton sold Sullivan & F 68 av 207 lbs at $3 55.

Judson sold Sullivan & F 32 av 217 lbs at $3 60.

Pierson sold Clark 81 av 199 lbs at $3 55.

Judson sold Webb Bros 24 av 267 lbs at $3 60.

C Roe sold Webb Bros 192 av 195 lbs at $3 65.

Plotts sold Snyder 81 av 222 lbs at $3 65.

Devine sold Sullivan & F 66 av 214 lbs at $3 55.

Tabor sold Sullivan & F 55 av 237 lbs at $3 55.

Lewis sold Sullivan & F 54 av 256 lbs at $3 60.

C Roe sold Webb Bros 126 av 191 lbs at $3 60.

Haywood sold Clark 82 av 232 lbs at $3 65.

Crawford sold Allen 67 av 243 lbs at $3 65.

McCaul sold Sullivan & F 45 av 242 lbs at $3 55.

Giddings sold Clark 38 av 211 lbs at $3 62½.

Jenks sold Sullivan & F 49 av 216 lbs at $3 60.

C Roe sold Webb Bros 47 av 244 lbs at $3 60.

King's Yards.

Saturday, Nov. 27, 1886.

CATTLE.

The market opened up at these yards with 369 head of cattle on sale. There was an active demand for all grades, and for everything above the coarsest classes prices ranged 15@20 cents higher than those of last week.

Shepard sold J Wreford 7 fair butchers' steers and heifers av 817 lbs at $3 15.

Church sold J Wreford a mixed lot of 5 head of fair butchers' stock av 866 lbs at $3, and 11 stockers to Rice av 736 lbs at $2 65.

Kennedy sold Wreford & Beck a mixed lot of 5 head of fair butchers' stock av 766 lbs at $2 75.

Butler sold Wreford & Beck 2 good cows av 955 lbs at $3.

Haley sold Wreford & Beck 2 fair butchers' steers av 965 lbs at $3 60.

Anstey sold Wreford & Beck a mixed lot of 22 head of good butchers' stock av 930 lbs at $3 40.

Kalaher sold Billkofski a mixed lot of 6 head of fair butchers' stock av 860 lbs at $3.

Nott sold Wreford & Beck a mixed lot of 9 head of fair butchers' stock av 907 lbs at $3 10.

Anstey sold Wreford & Beck 2 fair cows av 1,000 lbs at $2 50.

Butler sold Flieschman 4 bulls av 782 lbs at $2, and a mixed lot of 8 head of thin butchers' stock av 785 lbs at $2 40.

Beach sold Hersch 8 fair butchers' steers av 1,032 lbs at $3 65 and a bull weighing 1,060 lbs at $2 25.

Nott sold Rice 5 stockers av 638 lbs at $2 50.

McHugh sold Kamman 9 coarse cows av 970 lbs at $2.

Nott sold McGee a mixed lot of 14 head of coarse butchers' stock av 760 lbs at $2.

Kalaher sold Marshich 3 thin heifers av 773 lbs at $2 65.

Graham sold Marx a mixed lot of 6 head of coarse butchers' stock av 716 lbs at $2 35.

McFarlan sold Knoch 2 fair butchers' steers av 920 lbs at $3 35.

Smith sold Knoch 2 good butchers' steers av 1,025 lbs at $3 80.

Wietzel sold Wreford & Beck a fair heifer weighing 730 lbs at $3, and a cow weighing 1,050 lbs at $2 75.

Shepard sold H Roe a mixed lot of 15 head of thin butchers' stock av 790 lbs at $2 40.

McFarlan sold Wreford & Beck a mixed lot of 9 head of fair butchers' stock av 817 lbs at $2 80, and 8 stockers to Rice av 695 lbs at $2 50.

Wietzel sold McGee 7 coarse cows and a bull av 940 lbs at $2.

Baker sold Wreford & Beck a mixed lot of 4 head of fair butchers' stock av 847 lbs at $3.

McFarlan sold Stonehouse a mixed lot of 11 head of thin butchers' stock av 730 lbs at $2 40.

Smith sold Stonehouse a mixed lot of 5 head of thin butchers' stock av 694 lbs at $2 45.

Purdy sold Reid a mixed lot of 8 head of fair butchers' stock av 710 lbs at $3, and 10 to Kammon av 762 lbs at $3 20.

SHEEP.

The offerings of sheep numbered 3,211 head. The sheep market opened up with an active demand for shipment, and the competition for the receipts sent prices for common sheep up 15@25 cents over the rates of last week. The market closed firm with all sold.

Desermia sold Purdy 114 av 77 lbs at $3 60.

Kalaher sold Stevens 70 av 82 lbs at $3 75.

Baker sold Purdy 200 av 84 lbs at $3 50.

Loosemore sold Stevens 82, part lambs, av 68 lbs at $3 10.

Marshall sold Purdy 129 av 84 lbs at $3 75.

Jacob sold Purdy 65, part lambs, av 74 lbs at $3 30.

Longcor sold Purdy 72 av 80 lbs at $3 50.

Shipley sold Green 193, part lambs, av 69 lbs at $3.

Weber sold Morey 125 av 81 lbs at $3 25.

Anstey sold Morey 16 av 82 lbs at $3.

Lyman sold Ellis 17 av 92 lbs at $4.

Hall sold Sullivan 69 av 80 lbs at $3.

Seeley sold Sullivan 147 av 70 lbs at $2 70.

Proper sold Loosemore 134 av 76 lbs at $3.

Morrison sold Farwell 59, part lambs, av 78 lbs at $3 50.

Morris sold Farwell 118 av 80 lbs at $3 30.

Ormiston sold Loosemore 55 av 82 lbs at $2 80.

McGeorge sold Sullivan 189 av 73 lbs at $3.

Haley sold Farwell 48, part lambs, av 76 lbs at $3 20.

Rundel sold Wreford & Beck 48 av 79 lbs at $3 25.

Driscoll sold Loosemore 70 av 83 lbs at $2 85.

Van Tuyl sold Wreford & Beck 58 av 82 lbs at $3 25.

Webb sold Wreford Beck 62 av 82 lbs at $3 25.

HOGS.

The offerings of hogs numbered 2,663. The hog market opened up very slow. Buyers offered 20@30 cents lower prices than they paid last week, and sellers had to finally come to their terms. Some few of the drovers filled out their loads here and took their chances in the Buffalo market.

Anstey sold R S Webb 42 av 187 lbs at $3 40.

Wilcox sold Standlick 72 av 208 lbs at $3 70.

Robb sold Rauss 66 av 236 lbs at $3 50.

Richmond sold Sullivan 78 av 212 lbs at $3 40.

McHugh sold Rauss 118 av 225 lbs at $3 50.

Proper sold Rauss 57 av 196 lbs at $3 50.

Johnson sold Sullivan 35 av 211 lbs at $3 40.

Bliss sold Sullivan 41 av 286 lbs at $3 60.

Lyman sold Egerton 45 av 238 lbs at $3 50.

Beach sold Sullivan 27 av 243 lbs at $3 50.

Ormiston sold Harger 19 av 255 lbs at $3 50.

Driscoll sold Sullivan 21 av 205 lbs at $3 40.

Standlick sold Sullivan 59 av 207 lbs at $3 50.

Goodwin sold Harger 55 av 206 lbs at $3 50.

Loosemore sold R S Webb 20 av 272 lbs at $3 45.

Morris sold Sullivan 34 av 165 lbs at $3 35.

Culver sold Sullivan 101 av 239 lbs at $3 55.

Wietzel sold Sullivan 56 av 199 lbs at $3 40.

Eaman sold Sullivan 116 av 221 lbs at $3 50.

Webb sold Sullivan 107 av 239 lbs at $3 50.

Van Tuyl sold Sullivan 14 av 245 lbs at $3 45.

Jacobs sold R S Webb 27 av 180 lbs at $3 50.

Beardslee sold Rauss 89 av 254 lbs at $3 50.

Kalaher sold Harger 57 av 219 lbs at $3 50.

Stevens sold Sullivan 62 av 192 lbs at $3 50.

Beardslee sold Rauss 57 av 144 lbs at $3 50.

Shipley sold R S Webb 58 av 173 lbs at $3 37½.

Loosemore sold Sullivan 34 av 212 lbs at $3 45.

Purdy sold R S Webb 29 av 156 lbs at $3 35.

Beardslee sold Rauss 63 av 222 lbs at $3 50.

Buffalo.

CATTLE.—Receipts 8,276, against 14,916 the previous week. The market opened up on Monday with 216 car loads of cattle on sale. All classes of butchers' cattle and light grades were in good demand at an advance of 10 cents per hundred over the prices of the previous Monday, while good cattle were quiet and steady. Good shipping steers sold at $4 35@4 55; fair do, $3 85@4 15, and fair to good butchers' steers, $3 40@4, no extra steers on sale. Mixed butchers' stock sold at $2 50@3 50 for common to good and stockers at $2 50@3. The receipts were light on Tuesday and Wednesday, and prices were unchanged. The following were the closing.

QUOTATIONS:

Extra Beeves—Graded steers, weighing 1,300 to 1,450 lbs	4 50@$4 75
Choice Beeves—Fine, fat, well-formed steers, weighing 1,300 to 1,400 lbs	4 25@4 50
Good beeves—Well-fattened steers weighing 1,200 to 1,350	4 00@4 25
Medium Grades—Steers in fine flesh, weighing 1,100 to 1,200 lbs	3 75@4 00
Light Butchers'—Steers averaging 850 to 1,100 lbs, of fair to good quality	3 00@3 65
Butchers' Stock—Inferior to common steers and heifers, for city slaughter, weighing 900 to 1,000 lbs.	2 50@3 00
Michigan stock cattle, common to choice	2 50@3 00
Michigan feeders, fair to choice	3 25@3 50
Fat bulls, fair to extra	2 25@3 00

SHEEP.—Receipts 43,200, against 30,000 the previous week. The sheep market opened up steady and firm on Monday with 90 car loads on sale. On Tuesday and Wednesday the receipts were liberal and the market ruled slow but not quotably lower. At the close common to fair sheep sold at $2 75@3 25; good to choice $3 50@4, extra butchers, $4 25, good to extra feeders, $4@4 50, good to choice western lambs, $4 50@5 25.

HOGS.—Receipts 117,234, against 77,220 the previous week. The supply of hogs on Monday was the largest on record, there being 240 car loads on sale. Prices fell off 15 cents on Saturday and 5@10 cents more on Monday, ruled steady on Tuesday and Wednesday, closing with pigs selling at $3 50@3 75; mixed pigs and light Yorkers, $3 75@3 80; selected Yorkers and selected medium weights, $3 85@3 95, and $4 for a few choice; coarse ends and rough hogs, $3@3 30.

Chicago.

CATTLE.—Receipts 41,120, against 30,961 last week. Shipments 12,195. The cattle market opened up steady at Saturday's closing prices with about 8,000 head on sale, Some Christmas steers sold at $5 20@5 40; prime shipping, $4 90@5 15; fair to choice, $3 65@4 35; fair to good butchers' steers, $3 05@3 75, and inferior to choice cows, $1@2 60. The market declined 10 cents on Tuesday, and on Wednesday another 10 cents was taken off all grades of range cattle, the receipts of this class being very heavy. The market ruled steady on Thursday, advanced 10 cents on Friday and 10 cents more on Saturday, closing at the following

QUOTATIONS:

Prime beeves	$5 00@5 15
Choice to fancy shipping, 1,350 to 1,600 lbs	4 30@4 80
Fair to choice shipping, 1,200 to 1,400 lbs	3 70@4 55
Common to good shipping, 1,050 to 1,250	3 25@3 80
Poor and medium steers, 960 to 1,100 lbs	3 00@3 55
Fair to choice cows	1 40@2 50
Inferior to medium cows	1 00@1 65
Poor to choice bulls	1 40@2 60
Stockers, 550 to 860	2 00@2 80
Feeders, 875 to 1,150	2 85@3 60

HOGS.—Receipts 251,188, against 200,607 last week. Shipments 43,946. The offerings of hogs on Monday numbered 43,000. The market opened up active with prices a shade higher on fancy grades and lower on common. Poor to prime light sold at $3 60@4; inferior mixed to choice heavy, $3 75@4, with skips and culls at $2 25@3 50. Prices declined 5@10 cents on Tuesday, ruled steady on Wednesday and Thursday, declined 5 cents on common heavy hogs, and 10@15 cents on light on Friday, but advanced 5@10 cents on Saturday. At the close poor to prime light sold at $3 35@3 80; inferior mixed to choice heavy, $3 75@4; with skips and culls at $2 25@3 25.

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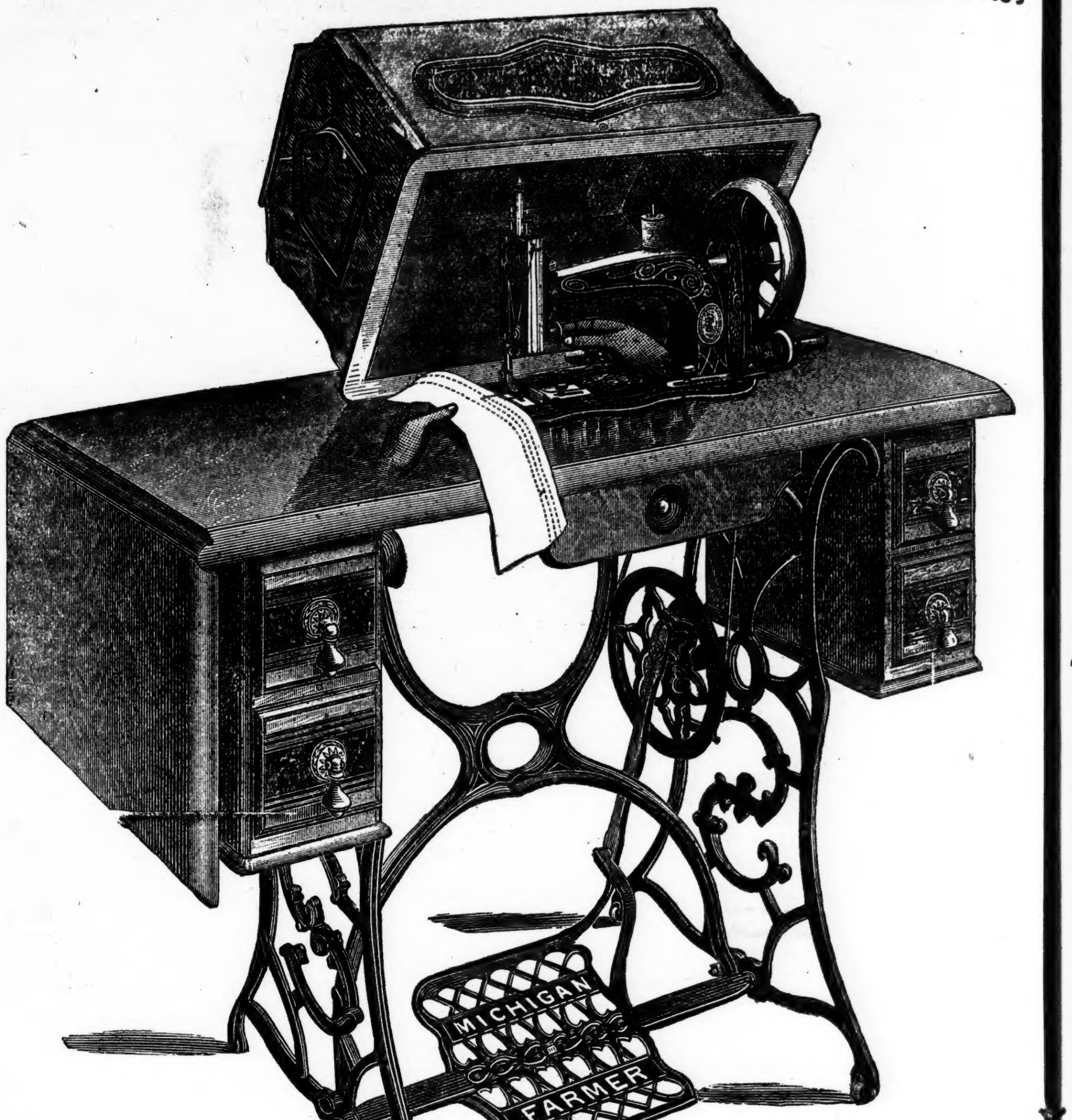

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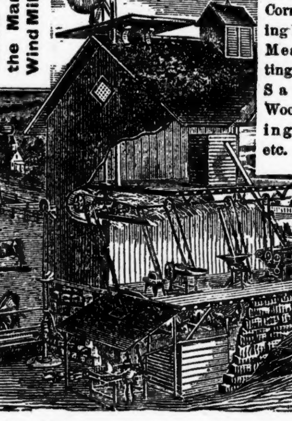

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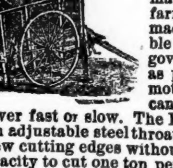

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